

**STRATEGIES FOR THE SUSTAINABLE USE AND  
MANAGEMENT OF TIMBER TREE SPECIES SUBJECT  
TO INTERNATIONAL TRADE:  
SOUTH EAST ASIA**



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## ORGANISATIONS, ACRONYMS AND WEBLINKS

CBD	Convention on Biological Diversity <a href="http://www.biodiv.org">www.biodiv.org</a>
CITES	Convention on International Trade in Endangered Species of Fauna and Flora <a href="http://www.cites.org">www.cites.org</a>
Defra	Department for Environment, Food and Rural Affairs <a href="http://www.defra.gov.uk">www.defra.gov.uk</a>
FAO	Food And Agriculture Organization Of The United Nations <a href="http://www.fao.org">www.fao.org</a>
FFI	Fauna and Flora International <a href="http://www.fauna-flora.org">www.fauna-flora.org</a>
FRIM	Forest Research Institute of Malaysia <a href="http://www.frim.gov.my">www.frim.gov.my</a>
TRAFFIC	TRAFFIC International <a href="http://www.traffic.org">www.traffic.org</a>
UNEP	United Nations Environment Programme <a href="http://www.unep.org">http://www.unep.org</a>
UNEP-WCMC	United Nations Environment Programme World Conservation Monitoring Centre <a href="http://www.unep-wcmc.org">http://www.unep-wcmc.org</a>
WWF	World Wide Fund for Nature <a href="http://www.wwf.org">http://www.wwf.org</a>



## SUMMARY

Internationally agreed targets to manage the world's living resources sustainably are recognised by the United Nations (Millennium Development Goal 7), Convention on Biological Diversity (CBD; 2010 target), and CITES (Strategic Plan). Timber producing trees are particularly prone to over-exploitation. For species in international trade, regionally agreed sustainable use and management strategies are needed at the species level if these international targets are to be met.

South East Asian timber tree species in international trade and in need of action at the national or international level to ensure their long-term sustainable use, were identified by a panel of experts at a regional workshop held in Kuala Lumpur, Malaysia, 5-7 September 2007.

The group involved experts from various sectors: forestry, timber trade, plant taxonomy, botanic garden, CITES and FAO. Experiences in the management and sustainable trade of a total of 122 regional timber species were shared to identify species that are or that may be subject to unsustainable harvesting for international trade. Details were collated on the pressures or threats that the species' face, including knowledge relevant to the use of each species.

Sixty-six species were considered to be in international trade and of known, or possible, conservation concern (tables 1, 1A & 2). Of these, 15 species and the genera *Dalbergia* and *Diospyros* (included in tables 1 & 1A) were identified as immediate priorities for action at the national or international level.

## INTRODUCTION

### Forests

Forests play a critical role in the lives and wellbeing of people around the world. Six million indigenous people living in the rain forests of Latin America, Southeast Asia and West Africa depend heavily on forests. A further 350 million people living in, or next to, dense forests rely on them for subsistence or income whilst 1.2 billion people in developing countries use trees on farms to generate food and cash (FAO, 2005<sup>1</sup>).

Forests also play a major role in relation to climate change. According to FAO (2005) they contribute about one-fifth of global carbon emissions

when cleared; they react sensitively to a changing climate; when managed sustainably, they produce wood fuels as a benign alternative to fossil fuels; and finally, they have the potential to absorb about one-tenth of projected global carbon emissions into their biomass, soils and products and store them – in principle in perpetuity.

Despite this, the world's natural forests are shrinking and forest systems worldwide are under threat for a wide range of reasons. These include habitat destruction, and exploitation for use as timber, firewood or for other non-timber forest products, which are major commodities in international trade. However, whereas habitat destruction may impact the forest in general, use,

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<sup>1</sup> FAO. 2005. FAO website [www.fao.org/forestry](http://www.fao.org/forestry)



and particularly international use, of trees is species specific, depending on the quality of the product used: wood, fruit, sap etc. The very high value of a final product may put great pressure on the species concerned leading to the decline of high value tree species

in their natural habitats. However, in general, efforts to ensure the sustainable use of forests have so far focussed on the forest as a whole rather than on particular species that may be subject to specific exploitation.

### Forest Protection: national & international actions

Countries have addressed the issue of forest protection through tools such as legally gazetted areas in which disturbance to the ecosystem is then limited, and by passing legislation that limits the species and the size and quantity of specimens that may be felled or harvested. However, there is evidence of low levels of compliance of both protected area and timber harvesting legislation, and international trade in illegally sourced timber is a major source of concern. International efforts have therefore developed to address two issues: 1) ensuring forest use is sustainable; 2) ensuring forest use is legal.

Direct measures to manage the way in which trees are exploited include development of certification standards and standards that codify practices for sustainable forestry. These are essentially voluntary and depend on a range of factors, including producer engagement; effective monitoring of the frequently complex chain-of-custody from producer to consumer; and consumer demand.

International initiatives with targets that encompass or necessitate safeguarding the world's forests include:

- UN Millennium Development Goal 1 to eradicate extreme poverty and hunger

- UN Millennium Development Goal 7 to ensure environmental sustainability
- CBD 2010 target, "to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level" and, CBD Global Strategy for Plant Conservation
- CITES strategic plan: No species of wild flora subject to unsustainable exploitation because of international trade

Relevant actions that need to be implemented to ensure sustainable forest management are identified in the World Summit on Sustainable Development (WSSD) Plan of Implementation and the CBD Workplan. These include the need to:

- Determine status and conservation needs of endemic or threatened species and the impacts of current forest management practices on them;
- Develop initiatives that address the sustainable use of timber and non-timber forest products;
- Assist importing countries to prevent the entry of unsustainably harvested forest resources which are not covered by CITES.



## Workshop objectives

The workshop directly addressed these three needs. Demand for forest information has never been greater or more complex than now, with countries being asked to report regularly in order to fulfil their obligations to the international agreements to which they are party, and as civil society becomes increasingly concerned about the state and trends in forest stocks, goods and services.

The current initiative was undertaken in response to the need to ensure that authoritative information at the species level is available to those people responsible for decision

making. Thus, the workshop's specific objective was to identify, on a regional basis, timber tree species involved in international trade, for which data on use and population size indicate that species specific management plans are needed, and additionally to produce recommendations for these species. By collaborating with organisations at a regional level, synthesising all existing relevant information and making this available in an integrated format, the capacity of countries and organisations to make well-informed decisions is enhanced, particularly for species occurring in more than one country in the region.

## IMPLEMENTATION

The concept for this workshop was based on earlier work funded by the governments of the Netherlands and the United Kingdom. This earlier work included compilation of a desk study *Contribution to an evaluation of tree species using the new CITES listing criteria* in 1998 (funded by the Netherlands). A history of subsequent activities leading up to the workshop is provided on the CITES website in PC16 Doc. 19.2<sup>2</sup>

This work led to the decision to implement a series of regional workshops to bring regional experts together to discuss the timber trees of each region included in the desk study. The objective was to identify species in international trade and of conservation concern and to subsequently identify strategies to support their long-term sustainable use.

The first regional workshop, for Central America, was held in Nicaragua in 2005.

Experts from South East Asian countries were invited to participate in a regional workshop, held in Malaysia, 5-7 September 2007. In addition, representatives of UN organisations, other inter-governmental organisations, and non-governmental organisations were invited to attend. Participants had diverse backgrounds and experience of the forest sector, timber trade, plant taxonomy, and implementation of CITES.

Participants were asked to provide information on 115 South East Asian timber tree species in international trade, identified by UNEP-WCMC based on a global survey undertaken previously (WCMC, 1999). The background information on the 115 species is available at:

[www.unep-wcmc.org/forest/timber](http://www.unep-wcmc.org/forest/timber)

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<sup>2</sup>

<http://www.cites.org/eng/com/PC/16/E-PC16-19-02.pdf>



The participants discussed the 115 species, with a view to identifying, as a priority, those that are in international trade and of known or of possible conservation concern.

Participants also nominated an additional seven species for consideration and provided information on actions currently underway in their countries in relation to all the species discussed.

## RESULTS

The 115 timber species discussed in detail during the workshop were eventually divided into six categories, according to the criteria:

### 1 *In international trade & threatened (Table 1)*

- Threatened in at least one country/province in the region (excluding Singapore, which was considered together with Peninsular Malaysia).
- Known to be threatened, but threat not necessarily due to trade.

### 2 *In international trade but data deficient for conservation concern (Table 2).*

- Threatened in at least one country/province in the region (excluding Singapore, which was considered together with Peninsular Malaysia).
- Insufficient information available to determine whether the species is threatened

### 3 *Taxonomic confusion (Table 3)*

- Possibly in international trade and possibly of conservation concern.
- Confusion over taxonomy of the species prevents clear understanding of the trade situation.

### 4 *In international trade, but not considered to be threatened (Table 4).*

- Known to be in international trade.
- Available information suggests the species is not threatened.

### 5 *Not in international trade but thought to be threatened by workshop participants or previously recorded as threatened by IUCN (Table 5).*

- Not known to be in international trade.
- Available information suggests the species is threatened.

### 6 *Not in international trade & not considered to be threatened (Table 6).*

- Not known to be in international trade.
- Not known to be threatened.

Due to the large number of species for discussion, the decision was taken to focus the workshop on considering data on the status of the 115 species.

It was agreed that attempting to identify relevant actions for each species was impracticable within the time constraints. Information on the 115 species provided by workshop participants is given in Annex 1 (Tables 1-6).

This information augments the data provided in the background documentation, available at [www.unep-wcmc.org/forest/timber](http://www.unep-wcmc.org/forest/timber)

### Priority Species

Fifty-nine of the 115 species were identified as being in international trade, and of conservation concern, or possibly of conservation concern.

Forty species (Table 1) were identified as being in international trade and of conservation concern and 19 species



(Table 2) were identified as being in international trade and of possible conservation concern.

Eight species and two genera in table 1 were identified by particular countries as being of highest priority for action.

Seven additional species identified by participants as being of conservation concern and in international trade and considered to be priorities for action are listed in table 1A. There was insufficient time and information to discuss these in detail.

### Other species

Seven species (Table 3) were considered to be subject to taxonomic confusion, but possibly in international trade and possibly of conservation concern.

Seventeen species were considered to be in international trade, but not threatened (table 4). Thirty two species were considered not to be in international trade (tables 5 and 6).

### Follow-up actions

Actions proposed by the workshop participants for the species identified as priority by specific countries are included for each of those species in the Annex.

A number of other actions were proposed during the workshop. These are detailed in the Annex and are also outlined below:

- a. The background document for *Neesia malayana* indicating that the species is threatened in **Indonesia** was questioned, and it was suggested that Indonesia undertake research to assess status.
- b. It was decided that **ITTO** would be asked to check the nomenclature of timber traded as *Shorea* in order to avoid confusion between species in trade statistics.
- c. *Dalbergia bariensis* is under revision in **Thailand**, and it was noted that one of the Thai participants (Dr. Chayamarit) could supply information on who is carrying out the revision, so that the botanists involved can be contacted.
- d. Further clarification was considered to be needed for *Palaquium bataanense*, and it was suggested that **UNEP-WCMC** and the **Philippines** double-check on which list it should be included.

Table 1: Timber tree species in international trade, of conservation concern: priorities for action<sup>3</sup>

	Family	Species	Range States <sup>4</sup>							
			KH	ID	LA	MY	PH	TH	VN	Other <sup>5</sup>
1	Anacardiaceae	<i>Mangifera macrocarpa</i>		√			√		√	
2	Apocynaceae	<i>Dyera polyphylla</i>		√			√			√
3	Bombacaceae	<i>Neesia altissima</i>		√			√		√	
4		<i>Neesia malayana</i>		√			√		√	
5	Burseraceae	<i>Canarium pseudosumatranum</i>		√			√			
6	Crypteroniaceae	<i>Dactylocladus stenostachys</i>		√			<u>S</u>			√
7	Dipterocarpaceae	<i>Anisoptera costata</i>	√	√	√	√	√	√	<u>S</u>	√
8		<i>Neobalanocarpus heimii</i>					<u>S</u>	√		
9		<i>Shorea albida</i>		√			<u>S</u>			√
10		<i>Shorea curtisii</i>		<u>S</u>		√		√		√
11		<i>Shorea negrosensis</i>						√		
12		<i>Shorea rugosa</i>		<u>S</u>		√				√
13	Ebenaceae	<i>Diospyros mun</i>				<u>G</u>			<u>S</u>	
14		<i>Diospyros philippinensis</i>		<u>G</u>			<u>G</u>			
15	Icacinaceae	<i>Cantleya corniculata</i>		√			√			√
16	Lauraceae	<i>Eusideroxylon zwageri</i>		√			<u>S</u>	√		

<sup>3</sup> S indicates **species** identified by that range state as a priority.

G indicates the species is from a **genus** identified as a priority

√ species occurrence confirmed

(√) species occurrence uncertain

<sup>4</sup> Known occurrence in the countries participating in the workshop (except for Singapore).

Cambodia KH

Indonesia ID

Lao P.D.R. LA

Malaysia MY

Philippines PH

Thailand TH

Viet Nam VN

<sup>5</sup> "Other" refers to occurrence in any of the remaining SE Asian countries, in particular Brunei, Myanmar and/or Singapore.



	Family	Species	Range States <sup>4</sup>							
			KH	ID	LA	MY	PH	TH	VN	Other <sup>5</sup>
17	Leguminosae	<i>Afzelia xylocarpa</i>	√		√			√	√	√
18		<i>Cynometra elmeri</i>		√		√	√			
19		<i>Cynometra inaequifolia</i>				√	√			
20		<i>Cynometra malaccensis</i>				√	√	√		
21		<i>Dalbergia annamensis</i>							<u>G</u>	
22		<i>Dalbergia cambodiana</i> [Also listed in table 3]	<u>G</u>						<u>G</u>	
23		<i>Dalbergia cochinchinensis</i>	<u>G</u>		<u>G</u>			<u>G</u>	<u>G</u>	
24		<i>Dalbergia mammosa</i>							<u>G</u>	
25		<i>Dalbergia oliveri</i>	<u>G</u>			<u>G</u>		<u>G</u>	<u>G</u>	<u>G</u>
26		<i>Dalbergia tonkinensis</i>							<u>S</u>	
27		<i>Dialium cochinchinense</i>	√		√	√		√	√	√
28		<i>Erythrophileum fordii</i>	(√)						√	
29		<i>Intsia bijuga</i>	√	√		√	√	√	√	√
30		<i>Koompassia excelsa</i>		√		<u>S</u>	√	√		√
31		<i>Koompassia grandiflora</i>		√						
32		<i>Koompassia malaccensis</i>		√		√		√		√
33		<i>Pterocarpus macrocarpus</i>	√		√			√	√	√
34		<i>Sindora inermis</i>		√			√			
35		<i>Sindora supa</i>					√			
36		<i>Xylia xylocarpa</i>	√		√		√	√	√	
37	Pinaceae	<i>Pinus merkusii</i>	√	√	√		√	√	√	√
38	Proteaceae	<i>Alloxylon brachycarpum</i>		√						
39	Sapotaceae	<i>Madhuca pasquieri</i>							√	
40		<i>Manilkara kanosiensis</i>		√						

**Table 1A: Additional timber tree species in international trade, of conservation concern, identified by workshop participants as priorities for action**

Species	Proposed by	Workshop comments
<b>Bignoniaceae</b>		
1 <i>Markhamia stipulata</i>	Viet Nam	The VN participants proposed carrying out further research on the species' ecology, distribution, uses, planting and conservation status.
<b>Dipterocarpaceae</b>		
2 <i>Parashorea chinensis</i>	Viet Nam	See above.
<b>Guttiferae</b>		
3 <i>Mesua ferrea</i>	Viet Nam	See above
<b>Lauraceae</b>		
4 <i>Potoxylon melagangai</i>	Malaysia	MY participants noted that felling restrictions for the species are in place in the country.  Also, see comments under <i>Dactylocladus stenostachys</i> (Annex 1, Table 1, record 6).  Endemic to Borneo.
<b>Leguminosae</b>		
5 <i>Intsia palembanica</i>	Indonesia & Malaysia	For ID participants' comments see <i>Shorea curtisii</i> Annex Table 1 (record 10).  MY participants noted that felling restrictions for the species are in place in the country. Also, see comments under <i>Dactylocladus stenostachys</i> (Annex 1, Table 1, record 6).
<b>Leguminosae</b>		
6 <i>Sindora siamensis</i>	Viet Nam	VN participants proposed carrying out further research on the species' ecology, distribution, uses, planting and conservation status.
<b>Meliaceae</b>		
7 <i>Chukrasia tabularis</i>	Viet Nam	See above



Table 2: Timber tree species in international trade, data deficient for conservation concern

	Family	Species	Range States							
			KH	ID	LA	MY	PH	TH	VN	Other
1	Celastraceae	<i>Lophopetalum javanicum</i>		√		√	√	√		
2		<i>Lophopetalum multinervium</i>		√		√				√
3		<i>Lophopetalum pachyphyllum</i>		√		√				
4		<i>Lophopetalum rigidum</i>		√		√				√
5	Chrysobalanaceae	<i>Parinari costata</i>		√		√	√			√
6		<i>Parinari oblongifolia</i>		√		√				√
7	Ebenaceae	<i>Diospyros rumphii</i>		√						
8	Flacourtiaceae	<i>Hydnocarpus sumatrana</i>		√		√	√	√		
9	Guttiferae	<i>Calophyllum canum</i>		√		√				√
10		<i>Calophyllum carrii</i> var. <i>longigemmatum</i>		√						
11		<i>Calophyllum insularum</i>		√						
12		<i>Calophyllum papuanum</i>		√						
13	Leguminosae	<i>Albizia splendens</i>		√		√		√		√
14	Myrtaceae	<i>Syzygium flosculifera</i>				√				
15		<i>Syzygium koordersiana</i>				√				
16		<i>Syzygium ridleyi</i>				√		√		√
17	Podocarpaceae	<i>Podocarpus neriifolius</i>	√	√	√	√	√	√		√
18	Sapotaceae	<i>Madhuca betis</i>		√			√			
19		<i>Madhuca boerlageana</i>		√						

Table 3: Timber tree species possibly in international trade and in need of taxonomic revision

	Family	Species	Range States <sup>#</sup>							
			KH	ID	LA	MY	PH	TH	VN	Other
1	Araucariaceae	<i>Agathis borneensis</i>		√		√				√
2		<i>Agathis dammara</i>		√						
3		<i>Agathis endertii</i>		√		√				
4	Ebenaceae	<i>Diospyros blancoi</i>				<u>G</u>	<u>G</u>			
5		<i>Diospyros ferrea</i>		<u>G</u>	<u>G</u>	<u>G</u>	<u>G</u>	<u>G</u>	<u>G</u>	<u>G</u>
6	Leguminosae	<i>Dalbergia bariensis</i>	<u>G</u>		<u>G</u>			<u>G</u>	<u>G</u>	
7		<i>Dalbergia cambodiana</i> [also listed in table 1]	<u>G</u>						<u>G</u>	

<sup>#</sup> G indicates the species is from a genus identified as a priority

#### Other Species

The remaining 50 species, allocated to categories 4-6, are listed in tables 4-6.

Table 4: Timber tree species in international trade, not considered to be of conservation concern

	Family	Species	Range States							
			KH	ID	LA	MY	PH	TH	VN	Other
1	Anacardiaceae	<i>Mangifera decandra</i>		√		√				√
2	Apocynaceae	<i>Dyera costulata</i>		√		√		√		√
3	Araucariaceae	<i>Araucaria cunninghamii</i>		√		√				
4	Bombacaceae	<i>Durio dulcis</i>		√		√				
5		<i>Durio kutejensis</i>		√		√				√
6	Burseraceae	<i>Santiria laevigata</i>		√		√	√	√		√
7		<i>Triomma malaccensis</i>		√		√				√
8	Datiscaceae	<i>Octomeles sumatrana</i>		√		√	√			
9	Lauraceae	<i>Dehaasia caesia</i>		√		√			√	√
10		<i>Dehaasia cuneata</i>	√	√		√		√	√	
11	Leguminosae	<i>Sindora beccariana</i>		√		√				√
12	Olacaceae	<i>Ochanostachys amentacea</i>		√		√				√
13	Sapotaceae	<i>Palaquium impressinervium</i>				√		√		
14		<i>Palaquium maingayi</i>				√		√		



	Family	Species	Range States							
			KH	ID	LA	MY	PH	TH	VN	Other
15	Sterculiaceae	<i>Pterocymbium beccarii</i>		√						
16	Verbenaceae	<i>Gmelina arborea</i>	√		√	√	√	√	√	√
17		<i>Tectona grandis</i>	√	√	√	√		√	√	√

**Table 5: Timber tree of conservation concern not thought to be in international trade**

Family		Species	Range States								
			KH	ID	LA	MY	PH	TH	VN	Other	
1	Burseraceae	<i>Canarium luzonicum</i>							√		
2	Cephalotaxaceae	<i>Cephalotaxus oliveri</i>				√				√	
3	Fagaceae	<i>Fagus longipetiolata</i>								√	
4	Lauraceae	<i>Cinnamomum porrectum</i>		√					√	√	√
5	Leguminosae	<i>Afzelia rhomboidea</i>		√		√	√				
6		<i>Kalappia celebica</i>		√							
7		<i>Pericopsis mooniana</i>		√		√	√				
8		<i>Wallaceodendron celebicum</i>		√			√				
9	Meliaceae	<i>Aglaia perviridis</i>					√		√	√	
10		<i>Aglaia silvestris</i>		√		√	√	√	√		
11		<i>Toona calantas</i>		√		√	√				
12	Olacaceae	<i>Strombosia javanica</i>		√		√		√		√	
13	Rutaceae	<i>Merrillia caloxylon</i>		√		√		√		√	
14	Sapotaceae	<i>Palaquium bataanense</i>						√			
15	Sterculiaceae	<i>Scaphium longiflorum</i>		√		√					
16	Verbenaceae	<i>Tectona philippinensis</i>						√			
17		<i>Vitex parviflora</i>		√			√				

**Table 6: Timber tree species not thought to be in international trade or to be of conservation concern**

	Family	Species	Range States <sup>#</sup>						
			KH	ID	LA	MY	PH	TH	VN Other
1	Aceraceae	<i>Acer laurinum</i>	√	?	√	√	√	√	√
2	Apocynaceae	<i>Alstonia pneumatophora</i>	√		√				√
3	Ebenaceae	<i>Diospyros pilosanthera</i>	<u>G</u>	<u>G</u>		<u>G</u>	<u>G</u>	<u>G</u>	<u>G</u>
4	Flacourtiaceae	<i>Homalium foetidum</i>	√		√	√			√
5	Guttiferae	<i>Calophyllum euryphyllum</i>	√						
6		<i>Calophyllum inophyllum</i>	√	√	√	√	√	√	√
7	Lauraceae	<i>Phoebe elliptica</i>	√		√				
8	Lecythidaceae	<i>Planchonia valida</i>	√		√				
9	Meliaceae	<i>Vavaea amicornum</i>	√		√	√			
10	Myrtaceae	<i>Kjellbergiodendron celebicum</i>	√						
11	Rubiaceae	<i>Jackiopsis ornata</i>	√		√				√
12	Simaroubaceae	<i>Ailanthus integrifolia</i>	√		√	√		√	√
13	Sterculiaceae	<i>Pterocymbium tinctorium</i>	√		√	√	√		√
14		<i>Pterocymbium tubulatum</i>	√		√				√
15	Verbenaceae	<i>Tectona hamiltoniana</i>							√

<sup>#</sup> G indicates the species is from a genus identified as a priority



## CONCLUSIONS

1. The workshop report should be sent as a priority to:
  - Range state national authorities, for consideration on actions concerning the species for which they are a range state.
  - the CITES Plants Committee, for consideration concerning species in international trade
  - IUCN (Red List programme), for consideration concerning species identified as threatened.
2. Species in four genera were identified as being in need of taxonomic revision:
  - *Agathis* (kauri/dammar) Araucariaceae (A taxonomic revision of *Agathis* in Indonesia was not considered necessary by the Indonesian participants).
  - *Cynometra* (kekatong) Leguminosae
  - *Dalbergia* (rosewoods) Leguminosae
  - *Diospyros* (ebonies) Ebenaceae

Two of these genera, *Dalbergia* and *Diospyros* were noted as being of particular importance.

Given the taxonomic confusion within these genera and the identification of *Dalbergia* species as priority species in both the Central American and the South East Asian workshops, it was suggested that the two genera should be priorities for taxonomic and subsequent trade review. UNEP-WCMC will forward the document to the CITES Nomenclature Committee, Royal Botanic Garden Kew and other taxonomic organisations.

3. Stefan Verbunt, on behalf of the government of the Netherlands, noted in his concluding speech, that the responsibility to prepare proposals to include any species in CITES Appendices I or II rested with range states, but that the Netherlands would be willing to provide support to range states in the preparation of such proposals.
4. Participants noted that it would be important to run a follow-up workshop in the region, to assess action in relation to the species listed in tables 1, 1A, 2 and 3 and to identify relevant actions needed as well as to consider additional species, including those listed in the table 1A.

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ANNEX 1

WORKSHOP SPECIES COMMENTS

Table 1. Timber tree species in international trade, of conservation concern

Family		Species (& Range States)	Workshop comments
1	ANACARDIACEAE	<i>Mangifera macrocarpa</i> (ID, MY, TH, other)	<p>Johnson (2007) noted that the same trade figures appeared in the background document for both <i>Mangifera</i> species. Soh (2007) clarified that trade figures correspond to the genus, as species cannot be easily identified. Soh (2007) added that this is the case for the majority of timber species, e.g. they are traded as groups (genera or even families) and trade names (and consequently trade figures) refer to these groups rather than to individual species.</p> <p>Setyawati (2007) indicated that no conservation measures were in place for the species in <b>Indonesia</b> and that it is not logged in the country. The species is thought to be extinct in Indonesia as a result of having been traded together with <i>M. decandrina</i> (Setyawati, 2007). The ID participants (2007) considered the species to be very rare in Java and Kalimantan, where they had difficulty finding it, perhaps because not all areas had been explored. The species was reported not to be planted widely in Indonesia (Komar, 2007).</p> <p>Considered to be very rare in <b>Malaysia</b> (Saw, 2007). Reported to be of no conservation concern in Sabah (Chua, 2007). In Sarawak it was reported to be only cultivated for its fruits (Julaichi, 2007). Being a fruit tree, the law in Malaysia does not allow this species to be harvested (Chua, 2007). It was further argued that, given that the species is very rare and that it is a fruit tree, it would not be traded in Malaysia unless it was by mistake (Abdullah &amp; Chua, 2007), and that it should therefore not be included in this list, but in list 5 (Abdullah, 2007). The MY participants (2007) therefore considered the timber of this species not to be in trade. Trade figures from Malaysia for the whole genus were reported to be an annual average of 50 m<sup>3</sup> of Machang logs and 1000m<sup>3</sup> of sawn timber between 2002 and 2006 (Jumat, 2007). Saw &amp; Chen (2007) noted however, that even if not specifically targeted, this species may still be logged and harvested together with more common look-alike species. Chua (2007) indicated that management measures are in place in Malaysia and suggested that information was needed on management measures in place in other countries.</p> <p>Considered to be very rare in <b>Thailand</b> and not in international trade. The whole genus is protected in the country (TH participants, 2007).</p> <p>It was confirmed that the species does not occur in <b>Cambodia</b> (KH participants, 2007).</p> <p>Not logged in the <b>Philippines</b> (PH participants, 2007). (The Philippines is not a range state).</p>



Family	Species (& Range States)	Workshop comments
2 APOCYNACEAE	<i>Dyera polyphylla</i> (ID, MY, other)	<p>Setyawati (2007) reported that <i>D. polyphylla</i>, a fast-growing species, is not very widespread in Indonesia, and that it occurs in Riau and Jambi. A study from west Kalimantan found a density of one individual/10 ha, but it was noted that this figure may be due to the sampling methodology used (Setyawati, 2007). It was noted that conservation measures for <i>D. costulata</i> were in place in Indonesia, including legal protection, policy measures, administrative management prescriptions and <i>ex-situ</i> conservation, and that only <i>Dyera</i> spp. trees over 60 cm of diameter may be harvested in the country (ID participants, 2007).</p> <p>Considered to be very common and one of the dominant species in peat swamp forests in Sarawak, where it is highly traded, with trade figures amounting to 30,000–40,000 m<sup>3</sup> per year (Abdullah, 2007).</p> <p>Habitat degradation and land use were considered to be the main problems affecting the species (Setyawati &amp; Abdullah, 2007).</p>
3 BOMBACACEAE	<i>Neesia altissima</i> (ID, MY, TH, other)	<p><i>N. altissima</i> was reported to occur in southern <b>Thailand</b>, but it was considered to be very rare in the country, and it is listed as threatened in the Red Data Book (TH participants, 2007). Kashio (2007) noted that lowland forests in southern Thailand have been very disturbed by agricultural plantations.</p> <p>Reported to occur in <b>Malaysia</b>, but it was not clear whether it was traded (Chua, 2007). Saw (2007) did not consider it was clear that the species is threatened. Its common name in Malaysia was reported to be Bengang (Abdullah, 2007). Administrative management prescriptions were reported to be in place in the country (MY participants, 2007).</p> <p>Komar (2007) agreed with the information in the background document for the species in <b>Indonesia</b>. It was also noted that not much was known about the trade (Setyawati, 2007).</p>
4	<i>Neesia malayana</i> (ID, MY, TH, other)	<p><i>N. malayana</i> was reported to be rare in <b>Thailand</b>, but not listed in the Red Data Book since it is not rare in other countries (Sridith, 2007).</p> <p>Considered to be common in <b>Malaysia</b> (Wong, 2007), including Sarawak (Julaihi, 2007). Administrative management prescriptions were reported to be in place in the country (MY participants, 2007).</p> <p>The information stating that the species is threatened in <b>Indonesia</b> was questioned, and it was suggested that Indonesia undertake research to assess status (Setyawati, 2007).</p>

Family	Species (& Range States)	Workshop comments
5 BURSERACEAE	<i>Canarium pseudosumatranum</i> (ID, MY, TH)	<p>Kongkanda (2007) indicated that <i>C. pseudosumatranum</i> occurs in the southern half of <b>Thailand</b> and that it is listed in the country's Red List.</p> <p>Sugau (2007) noted that this species does not occur in <b>Sabah</b>, according to Kochumen (1995) [Tree flora of Sabah and Sarawak, Vol. 1].</p>
6 CRYPTERONACEAE	<i>Dactylocladus stenostachys</i> (ID, MY, other)	<p><i>D. stenostachys</i> was reported to be found in heath forests in <b>Kalimantan</b> (Walujo, 2007) and also in peat swamp forests (Setyawati, 2007).</p> <p>Considered to be very common in <b>Sabah</b> and <b>Sarawak</b> (Julaihi, 2007). It was noted that its wood is very light and that it can last for a very long time if treated with preservatives. In Sarawak, it was reported to be one of the main timber species traded since the 1950s, although production figures were reported to show a drastic decrease since the 1980s (Julaihi, 2007). Log production has decreased from 235,500 m<sup>3</sup> in 1995 to 10,000 m<sup>3</sup> in 2006 (Abdullah, 2007).</p> <p>* <i>Dactylocladus stenostachys</i> was considered a priority species in <b>Malaysia</b> by the MY participants (2007), together with <i>Neobalanocarpus heimii</i>, <i>Shorea albida</i>, <i>Eusideroxylon zwageri</i>, <i>Koompassia excelsa</i>, <i>Potoxylon melagangai</i>, and <i>Litsia palenbanica</i>. The actions required for these species, according to the MY participants (2007), are the following:</p> <ul style="list-style-type: none"> <li>• Compilation of an inventory of the distribution of the populations and the standing stock;</li> <li>• Distribution mapping;</li> <li>• Propose listing of <i>Koompassia excelsa</i> in the list of Protected Trees of Sabah;</li> <li>• Include these species in the national Red Data Book;</li> <li>• Promote inter-agency/ ministry cooperation and coordination: customs, police, the army, territorial army (PGA), maritime police, MMEA, forestry, MTIB, STIDC, SFC, etc.</li> <li>• Promote trans-boundary cooperation for conservation and protection of these species;</li> <li>• Consider these species for international monitoring.</li> </ul>

Family	Species (& Range States)	Workshop comments
7 DIPTEROCARPACEAE	<p data-bbox="194 1290 219 1489"><i>Anisoptera costata</i></p> <p data-bbox="231 1219 294 1489">(KH, ID, LA, MY, PH, TH, VN, other)</p>	<p data-bbox="181 79 269 1199"><i>A. costata</i> has been recorded in east Kalimantan, Indonesia, but it is considered to be very rare there, with densities of one individual/10 ha (Komar, 2007). Some level of legal protection focusing on seed trees of the species was reported in the country (ID participants, 2007).</p> <p data-bbox="282 697 307 1199">The species is listed in the <b>Philippines’ Red List</b>.</p> <p data-bbox="320 79 383 1199">Legally exported from <b>Cambodia</b> during the 1980s and 1990s. Currently present to some extent in small-scale plantations (Thy, 2007).</p> <p data-bbox="395 79 458 1199">In <b>Lao P.D.R.</b> it is listed as being “under control”, and it was reported to occur at low to medium altitude in primary forest. It is used for plywood (Phothisat, 2007).</p> <p data-bbox="471 79 534 1199"><i>A. costata</i> was considered to be a priority species in <b>Viet Nam</b> by the VN participants (2007), who proposed carrying out further research on its ecology, distribution, utilisation, planting, and conservation status.</p> <p data-bbox="546 79 660 1199">The species was reported to be very widespread in <b>Malaysian Borneo</b>, as confirmed by databased data in the region (Julaihi, 2007). Its trade name in <b>Sarawak</b> is <b>Mersawa</b> (Julaihi, 2007). Policy measures and administrative management prescriptions were reported to be in place for the species in <b>Malaysia</b> (MY participants, 2007).</p> <p data-bbox="672 262 698 1199"><b>Viet Nam Additional comments below provided by Thy (2007), following the workshop.</b></p> <p data-bbox="710 620 735 1199"><b>Syn:</b> <i>Anisoptera glabra</i> non Kurz: Pierre (Dy Phon, 2000)</p> <p data-bbox="748 765 773 1199"><b>Habitat:</b> Native in Semi-evergreen forest.</p> <p data-bbox="786 658 811 1199"><b>Threats:</b> Over harvesting, habitat loss (observation)</p> <p data-bbox="824 233 849 1199"><b>Utilization:</b> Resin is tapped for sealing boats, making torches (local report &amp; Dy Phon, 2000)</p> <p data-bbox="861 79 950 1199"><b>Forest Management and Silviculture:</b> The species is regenerates well from seed and many young trees are observed in the disturbed dry evergreen forest, currently dwindled by land grabbing.</p> <p data-bbox="962 79 1021 1199"><b>Conservation Measures:</b> No report on plantation of the species was obtained so far, but some districts controlled by FA were raised in nurseries (verbal report by some Foresters).</p>



*Anisoptera costata* cntd.

Trade: *Anisoptera costata* is considered to be at least one half of the following volume:

Export of forest product from Cambodia

Year	Logs m³	Sawn Timber m³	Veneer m³	Plywood m³
1993	80,835	150,839		
1994	300,625	295,555		
1995	459,085	99,449		
1996	161,673	69,042	28,489	
1997	-	71,662	188,667	
1998	-	55,983	179,909	16,418
1999	-	9,829	68,320	14,865

All these were exported to Singapore, Taiwan, Hong Kong, Thailand, Japan, Lao PDR, USA, China, India, Korea, Philippines, Vietnam, Malaysia, and Russia. (Ma Sok Tha, Cambodia Tree seed Project, Phnom Penh, Cambodia. Source: Planning and Accounting office, Department of Forestry and Wildlife).

Family	Species (& Range States)	Workshop comments
8	<p><i>Neobalanocarpus heimii</i> (MY, TH)</p>	<p>Common name: Chengal.</p> <p>Synonym: <i>Balanocarpus heimii</i></p> <p>Occurs only in Peninsular Malaysia and Peninsular Thailand (Saw, 2007).</p> <p>Included in Thailand's Red List..</p> <p>13m<sup>3</sup> were reported to be traded from Malaysia, and it was noted that this is a very slow growing species (Chua, 2007) that produces very good timber (Saw, 2007). Conservation measures were reported to be in place for the species in Malaysia, including legal protection, policy measures, administrative management prescriptions and restrictions. In particular, it was noted that there is a higher levy for sawn timber, at RM800/m<sup>3</sup> (MY participants, 2007).</p> <p>The MY participants (2007) considered <i>N. heimii</i> to be a priority species in Malaysia, and a series of required actions were proposed for the species (see comments under <i>Dactylocladus stenostachys</i> for details).</p>
9	<p><i>Shorea albida</i> (ID, MY, other)</p>	<p><i>S. albida</i> was reported to be endemic to Borneo (West Kalimantan, Sarawak and Brunei), to occur in peat swamp forests, and to regenerate with difficulty (Saw, 2007). Considered to be very endangered (Chua, 2007). Abdullah (2007) noted that the timber of this species can be identified to the species level, unlike that of many other species in the genus. Traded as "Alan" or "Maraka" in Sarawak. Production reportedly decreased significantly from 463,000m<sup>3</sup> in 1995 to 14,700m<sup>3</sup> in 2006 (Julaihi, 2007).</p> <p>The MY participants (2007) considered <i>S. albida</i> to be a priority species in Malaysia, and a series of required actions were proposed for the species (see comments under <i>Dactylocladus stenostachys</i> for details).</p> <p>It was reported to be a major timber tree in Indonesia and it was noted that at least 11 species are already protected under the Forest Decree (Partomihardjo, 2007). Conservation measures including legal protection, policy measures, administrative management prescriptions, restrictions, and <i>ex-situ</i> conservation were reported to be in place for the species in the country. More specifically, it was indicated that protection focused on seed trees, and that only those <i>Shorea</i> spp. trees over 60 cm in diameter may be harvested (ID participants, 2007).</p>

Family	Species (& Range States)	Workshop comments
10	<i>Shorea curtisii</i> (ID, MY, TH, other)	<p><i>S. curtisii</i> was reported to be threatened in Kalimantan and Sabah, and widespread in Sarawak and Peninsular Malaysia; the species is reportedly not planted (MY participants). Julaihi (2007) indicated that in Sarawak it can be found in National Parks such as Lambir Hills National Park, therefore being protected. Noted to be a slow growing species (Walujo, 2007).</p> <p>Conservation measures including legal protection (in Indonesia only), policy measures, administrative management prescriptions, restrictions, and <i>ex-situ</i> conservation (in Indonesia only) were reported to be in place for the species in <b>Indonesia</b> and <b>Malaysia</b> (ID &amp; MY participants, 2007). More specifically, in <b>Indonesia</b> protection focuses on seed trees, and only <i>Shorea</i> spp. trees over 60 cm in diameter may be harvested (ID participants, 2007).</p> <p>* <i>Shorea curtisii</i> was considered by the ID participants (2007) to be one of the priority species for <b>Indonesia</b>, together with <i>Shorea rugosa</i>, <i>Intsia bijuga</i>, <i>Intsia palembanica</i>, and <i>Madhuca betis</i>. All these species were considered to have similar problems, as they are reportedly traded under similar market names or as mixed consignments. Conservation measures so far have mostly focused on particular <i>Shorea</i> species that occur in protected areas, and very little on those other species that are traded and currently rare in the wild. The actions required for these five species, according to the ID participants (2007), are the following:</p> <ul style="list-style-type: none"> <li>A comprehensive survey for those species as well as efforts to implement <i>in-situ</i> and <i>ex-situ</i> conservation.</li> <li>Achieve effective law enforcement through the establishment of good cooperation among all sectors including National and Local Government, NGOs, the private sector, and other relevant parties.</li> <li>In-depth research on the biology of the species, including taxonomy, geographical distribution, and ecology (especially on population and genetics).</li> <li>Strengthen collaboration with other countries where similar problems exist.</li> </ul>
11	<i>Shorea negrosensis</i> (PH)	<p><i>S. negrosensis</i> is listed in the Red List of the <b>Philippines</b>. It was reported that, although common in evergreen and dipterocarp forests, this species is believed to be under threat (Madulid, 2007).</p>



Family	Species (& Range States)	Workshop comments
12	<i>Shorea rugosa</i> (ID, MY, other)	<p>Occurs in the Lambir Hills and Bako National Parks in Sarawak (Julaihi, 2007).</p> <p>In Kalimantan, the species was reported to occur in yellow and white sandy soils in dipterocarp forests (Walujo, 2007). Conservation measures including legal protection, policy measures, administrative management prescriptions, restrictions, and ex-situ conservation were reported to be in place for the species in Indonesia. More specifically, protection focuses on seed trees, and only those <i>Shorea</i> spp. trees over 60 cm in diameter may be harvested (ID participants, 2007). <i>S. rugosa</i> was considered a priority species by the ID participants (2007), see comments on <i>Shorea curtisii</i> for more details.</p> <p><i>S. rugosa</i> is traded together with other <i>Shorea</i> species, and trade data (i.e. that from ITTO in the background document) should therefore refer to <i>Shorea</i>, not <i>S. rugosa</i>. It is not possible to identify individual <i>Shorea</i> species from their timber or products, except for <i>S. albidula</i> (Abdullah, 2007). It was decided that ITTO would be asked to check the nomenclature of timber traded as <i>Shorea</i>.</p>
13	EBENACEAE <i>Diospyros mun</i> (LA, VN)	<p><i>D. mun</i> is listed in the Red Data Book of Viet Nam. Reported to occur in limestone soils in Viet Nam, the species was considered to be of high commercial importance in the country (Sam, 2007). The VN participants (2007) considered <i>D. mun</i> to be a priority species in the country and proposed carrying out further research on its ecology, distribution, utilisation, planting, and conservation status.</p>
14	<i>Diospyros philippinensis</i> (ID, PH)	<p>No information was available from Lao P.D.R.</p> <p><i>D. philippinensis</i> was reported to be planted as fruit trees in many places in Java (Partomihardjo, 2007). Conservation measures including legal protection, policy measures, administrative management prescriptions, restrictions, and ex-situ conservation were reported to be in place for the species in the country. More specifically, protection and regulations referred to <i>Diospyros</i> spp., and only those <i>Shorea</i> spp. trees over 60 cm in diameter may be harvested (ID participants, 2007).</p> <p>Included in the Philippines' Red List. Madulid (2007) reported that it used to be abundant in the Philippines, but because of commercial exploitation the natural population has been significantly reduced. There has been a ban, but smuggling was reported to have taken place.</p>
15	ICACINACEAE <i>Cantleya comiculata</i> (ID, MY, other)	<p>Tukirin (2007) reported that <i>C. comiculata</i> was widespread, but very rare, in Indonesia, where no information on trade was available.</p> <p>Considered to be very rare in Malaysia, the country supposedly imports it from Kalimantan (Indonesia). The species was described as having beautiful grain and a nice smell, and it was reported to be traded as Bedaru and to be used as incense and for special purposes in Malaysia (Julaihi, 2007).</p>

Family	Species (& Range States)	Workshop comments
16 LAURACEAE	<i>Ensideroxylon zwageri</i> (ID, MY, PH)	<p>It was noted that <i>E. zwageri</i> is almost impossible to differentiate botanically from <i>Potoxylon melagangai</i>, a Borneo endemic, as they only differ in the density of the wood, and therefore this later species should be added to the list. Known as Borneo ironwood, it was reported to be the most sought-after timber due to its durability (Iulaini, 2007).</p> <p>It was reported that Sabah exports both species, but that there is no international trade in any of them from other regions (Partomihardjo, Saw &amp; Abdullah, 2007). An export ban for the species was reported to be in place in Sarawak since the 1950s (MY participants, 2007). The MY participants (2007) considered <i>E. zwageri</i> (and also <i>Potoxylon melagangai</i>) to be a priority species in <b>Malaysia</b>, and a series of required actions were proposed for the species (see comments under <i>Dactylocladus stenostachys</i> for details).</p> <p>Conservation measures including legal protection, policy measures, administrative management prescriptions, restrictions, and ex-situ conservation were reported to be in place for the species in <b>Indonesia</b>. More specifically, only trees over 60 cm in diameter may be harvested (ID participants, 2007).</p> <p><i>E. zwageri</i> was considered to be threatened in the <b>Philippines</b>, and it is listed in the country's Red List.</p>

Family	Species (& Range States)	Workshop comments
17    LEGUMINOSAE	<i>Azizelia xylocarpa</i> (KH, LA, TH, VN, other)	<p><i>A. xylocarpa</i> was considered to be of conservation concern in <b>Vietnam</b> (it is listed in the country's Red Data Book). Considered to be an important timber tree in Vietnam, and some trade in the species was reported to take place in the country (VN participants, 2007).</p> <p>Kitichate (2007) reported the species to be very rare in <b>Thailand</b>, although it is not listed in the country's Red Data Book. There is officially no trade in the species in Thailand, but its timber is very popular and illegal logging was reported to take place (Sridith, 2007). Trade was reported to come from Myanmar (Sridith, 2007).</p> <p>In <b>Lao P.D.R.</b>, <i>A. xylocarpa</i> was considered to be in trade but not of conservation concern (Bouahom, 2007).</p> <p>In <b>Cambodia</b>, it was reported to be very rare and in international trade (Thy, 2007).</p> <p>Additional comments on <i>Azizelia xylocarpa</i> provided by Thy following the workshop:</p> <p><b>Cambodian name:</b> Beng</p> <p><b>Habitat:</b> Occurs in evergreen and gallery forest up to 9m (observation).</p> <p><b>Threats:</b> Due to rarity of larger trees, loggers target trees with diameter at breast height (DBH) lower than 50cm.</p> <p><b>Trade:</b> Furniture produced from the species is possibly being shipped abroad (Lance A, Rasbridge). In 1994-95 Thai Companies were allowed by the Khmer Rouge to log <i>Azizelia xylocarpa</i> in South-western Cambodia (according to local reports). Assumed to be international trade (CTSP, FA, DANIDA, 2003).</p> <p><b>Conservation Measures:</b> Two locations of 38 ha (53 trees) in the natural habitats have been established for seed source. Another 10 ha plot of seed production area have been established for four species, including <i>Azizelia xylocarpa</i>. <i>Azizelia xylocarpa</i> mixed with <i>Pterocarpus macrocarpus</i> were planted in five hectares in 2004. 5200 seedlings were planted in 2005-2006 in Protected Areas, Bokor National Park, but half of the plantation was destroyed by fire in 2007.</p> <p><b>Forest Management and Silviculture:</b> The species is protected by law. Felling has never been permitted, except for "luxury" trees which may be allowed by special permission of the Cabinet of Ministers. However, illegal logging is still going on causing the species to decline rapidly in recent years.</p>



Family	Species (& Range States)	Workshop comments
18	<i>Cynometra elneri</i> (ID, MY, PH)	<p><i>C. elneri</i> is known from one province in the <b>Philippines</b>, where it is listed in the national Red List (Palis, 2007).</p> <p>In <b>Malaysia</b> the species was reported to be only known to occur in Sabah. It is often confused with <i>C. malaccensis</i> and it is traded as a group, since its timber cannot be distinguished.</p> <p>No information was available from <b>Indonesia</b>.</p>
19	<i>Cynometra inaequifolia</i> (MY, PH)	<p><i>C. inaequifolia</i> is listed in the <b>Philippines'</b> national Red List.</p> <p>MY participants (2007) reported that the species also occurs in <b>Sabah</b> (Gomantong Forest Reserve, Kinabatangan District).</p>
20	<i>Cynometra malaccensis</i> (MY, PH, TH)	<p><i>C. malaccensis</i> is listed in the <b>Philippines'</b> national Red List as Vulnerable.</p> <p>Reported to be widespread and in international trade in <b>Malaysia</b> (MY participants, 2007). However, it was considered to be in need of assessment, and an information gap in terms of distinguishing <i>C. elneri</i>, <i>C. inaequifolia</i> and <i>C. malaccensis</i> was noted (MY participants, 2007). Policy measures and administrative management prescriptions were reported to be in place in the country for the species (MY participants, 2007).</p> <p>Reported to be quite widespread in <b>Thailand</b> (Chavamarit, 2007).</p>
21	<i>Dalbergia annamensis</i> (VN)	<p><i>D. annamensis</i> is listed in the Red Data Book of <b>Viet Nam</b>. Local trade was reported to take place in the country (Hai, 2007). The VN participants (2007) pointed out that taxonomic confusion is a major problem with the <i>Dalbergia</i> group, and therefore considered <i>D. annamensis</i>, <i>D. bartschii</i>, <i>D. oliveri</i>, <i>D. mannosa</i>, and <i>D. cochinchinensis</i> to be priority species. They suggested that, since these species occur mainly in Viet Nam, the country could play a leading role in tackling the problem, and also proposed carrying out further research on the ecology, distribution, utilisation, and conservation status of the group (VN participants, 2007).</p> <p>Soh (2007) also noted taxonomic problems with the species.</p>

*Dalbergia cambodiana*

[Also listed in table 6]  
(KH, VN)

The workshops participants (2007) agreed that the genus *Dalbergia* worldwide is clearly in international trade and of economic importance and that there is considerable taxonomic confusion and many taxonomic entities that merit consideration. Some species are of conservation concern, due to highly restricted distribution. It was therefore regarded as a high priority to fund or facilitate taxonomic research in order to provide some clarity of the trade and conservation status.

*D. cambodiana* is listed in the Red Data Book of Viet Nam (Sam, 2007).

The KH participants (2007) noted taxonomic confusion in Cambodia, where it is considered to be a distinct species.

**Comments from Cambodia provided after the workshop by Thy (2007):**

Common names: Kranhung snaeng (black wood) (Cambodia)

**Syn:** No information

**Distribution:** Cambodia. The species is only reported and recognized by local people. No clear taxonomic name has been made.

**Habitat:** It has a restricted range of distribution. It usually occurs in open dipterocarp forest, mixed deciduous, dry evergreen forest in the lowlands up to around 700m a.s.l.

**Population status and Trend:** Native to Cambodia. It has been become rare due to logging.

**Threats:** Logging and habitat loss.

**Use:** Local people have used the wood for a long time for making oxcart wheels. The valuable timber is preferred for furniture processing.

**Trade:** According to recent interviews, both species (*Dalbergia bariensis* and *D. cambodiana*) are in high demand for international trade, but there are no exact data for the trade in each. The price in the city destination is as follow:

DBH: 15cm-28cm, Length: 1,5-2m-\$1900; DBH: 29cm-34cm, Length: 1,5-2m-\$2600; DBH: 35cm up, Length: 1,5-2m-\$3900

About 30 containers (each container c. 20 m<sup>3</sup>) are exported abroad per month, although the trade is illegal. In May/June 2007 four containers headed to the national port were confiscated by the Forestry Administration.

*Dalbergia cochinchinensis*  
(KH, LA, TH, VN)

The KH participants' (2007) comments were the same as for *D. cambodiana* in Cambodia, but *D. cochinchinensis* was considered to be more common. Thy (2007) indicated that there are plantations of the species in Cambodia. Trade in the species was reported to be only illegal (Thy, 2007).

The species is listed in Viet Nam's national Red Data Book. It is in commercial trade in the country, where its local name is Trac (VN participants, 2007). Reported to be an important timber tree in Vietnam (Sam, 2007). Sam (2007) considered the species to be a synonym of *D. cambodiana*. Also, see comments under *Dalbergia annamensis*.

It is listed in the list of species under special protection in Lao P.D.R. The common name for its wood in the country is Mai Khayung (LA participants, 2007).

*D. cochinchinensis* was reported to be more common than any other *Dalbergia* species in Thailand. There is trade in the species, although all timber trade in the species is illegal in the country (TH participants, 2007).

Also, see general comment for *Dalbergia* under *D. cambodiana*.

**Comments from Cambodia provided after the workshop by Thy (2007):**

**Common name:** Kranhung cheam moan (Locally known as black-red-stripe wood)

**Habitat:** The species has a wide range of distribution from open dipterocarp forest, mixed deciduous, semi-evergreen forest in lowland to hill evergreen up to 1200m. (Observation in Aural, 2006).

**Population status and trend:** It is native to Cambodia. It has been become rare due to logging for both local and international uses.

**Threats:** Logging and habitat loss.

**Use:** Local people have used the wood for a long time. The valuable timber is preferred for furniture processing.

**Trade:** According to recent interviews, both species (*D. cambodiana* and *D. cochinchinensis*) are in high demand for international trade, but there are no exact trade data for each species. The price in the city destination is as follow: DBH: 15cm-28cm, Length: 1.5-2m-\$1900; DBH: 29cm-34cm, Length: 1.5-2m-\$2600; DBH: 35cm up, Length: 1.5-2m-\$3900. About 30 containers (each container c. 20 m<sup>3</sup>) are exported abroad per month, although the trade is illegal.



Family	Species (& Range States)	Workshop comments
	<i>Dalbergia cochinchinensis</i> cntd.	<p><b>Conservation measure:</b> Plantation of the species has not been reported, but CTSP has established <i>in situ</i> conservation areas of 50 ha with 67 mother trees for species protection as seed source in the natural forests (So Thea, CTSP, DFW). Mixed plantation of about 1 ha has been planted in Cambodia.</p> <p><b>Forest management and silviculture:</b> Protected under forestry law.</p> <p>Very rare now. Light demanding and drought tolerant but not demanding with regard to soil conditions. Shade tolerant when young, occurring sparsely in open and semi-deciduous forest, preferring deep sandy clay soil and calcareous soil (CTSP, FA, DANIDA).</p> <p>The VN participants (2007) considered <i>D. mammosa</i> to be a synonym of <i>D. oliveri</i>.</p> <p>Also, see general comment for <i>Dalbergia</i> under <i>D. cambodiana</i>, and under <i>Dalbergia annamensis</i>.</p>
24	<i>Dalbergia mammosa</i> (VN)	
25	<i>Dalbergia oliveri</i> (KH, MY, TH, VN, other)	<p><i>D. oliveri</i> was reported not to be used much in <b>Thailand</b>, which is reflected by the fact that the species does not have a common name in the country (TH participants, 2007).</p> <p>The MY participants (2007) questioned the reference documents that indicate distribution of the species in <b>Malaysia</b>.</p> <p>The species is included in <b>Viet Nam's</b> Red Data Book (VN participants, 2007). Also, see comments under <i>Dalbergia annamensis</i>.</p> <p>Its common name in <b>Singapore</b> is Tamalan (Tan, 2007).</p> <p>Trade in the species was reported to take place in <b>Cambodia</b>, where the specific names <i>oliveri</i> and <i>bariensis</i> are both used. The species was considered to be of some conservation concern in the country (KH participants, 2007).</p> <p>Also, see general comment for <i>Dalbergia</i> under <i>D. cambodiana</i>.</p>

26	Family	Species (& Range States)	Workshop comments
		<i>Dalbergia tonkinensis</i> (VN)	<p><i>D. tonkinensis</i> is listed in the Red Data Book of Viet Nam, and was reported to be endemic to northern and central Viet Nam. Both historic and current trade were reported in the country for this species, which is locally called Sua, Huemoc Huynh Dan, and Trac Thoi. Trade was reported to be to China, including Hong Kong, and illegal only; its timber reportedly reaches prices of US\$30-60 per kg (VN Participants, 2007).</p> <p><i>D. tonkinensis</i> was considered a priority species for Viet Nam (VN participants, 2007), and the following actions were proposed:</p> <ul style="list-style-type: none"> <li>- Further taxonomic research, since a number of different species are locally named as <i>D. tonkinensis</i>;</li> <li>- Study the composition and uses of its timber, in order to understand why it is so expensive;</li> <li>- Study distribution, ecology, and conservation status of the species;</li> <li>- Study how the species is planted.</li> </ul> <p>Also, see general comment for <i>Dalbergia</i> under <i>D. cambodiana</i> and under <i>Dalbergia annamensis</i>.</p>

Family	Species (& Range States)	Workshop comments
27	<p><i>Dialium cochinchinense</i> (KH, LA, MY, TH, VN, other)</p>	<p><i>D. cochinchinense</i> was reported to be locally used in Cambodia (KH participants, 2007). It is listed in the Red Data Book of Lao P.D.R., where it was reported to be used locally. The fruit is collected in the country, and its local name is Keang (LA participants, 2007). Also reported to be locally used in Thailand, the fruit being eaten in Pen (Thailand). This was considered to be good for the conservation of the species, since locals apparently protect the tree (TH participants, 2007). The species is listed as of conservation concern in Viet Nam's Red Data Book. Its fruit is eaten in the country and its common name is Xoay (VN participants, 2007). The species occurs in Malaysia, and it was not considered to be in international trade in the country (MY participants, 2007). It was noted, however, that at least three other <i>Dialium</i> species appear in international trade, but no conservation concern was indicated. Administrative management prescriptions and export restrictions were reported to be in place in the country for the species (MY participants, 2007). <b>Comments from Cambodia provided after the workshop by Thy (2007):</b></p>
		<p><b>Common name:</b> Kralanh.</p>
		<p><b>Habitat:</b> It is native to Cambodia. Dry evergreen, evergreen forest.</p>
		<p><b>Population status and trends:</b> This species is relatively rare by its nature. Large scale logging has not been recorded.</p>
		<p><b>Threats:</b> Its status has become endangered due to local use and habitat degradation and conversion.</p>
		<p><b>Use:</b> The timber is valued as the first grade. Local use is just for pillars and oxcart parts, wooden supports and rice mills. The fruit is edible. The red bark can be used to make brown dye to clothes and fishing nets (Dy Phon P., 2000).</p>
		<p><b>Trade:</b> No reported.</p>
		<p><b>Conservation measures:</b> No information.</p>
		<p><b>Forest management and silviculture:</b> The species is allowed to cut from at least 45cm DBH. Logging is banned in Cambodia.</p>



Workshop comments

Family Species (& Range States)

*Erythrophileum fordii*  
(KH, VN)

*E. fordii* is listed in the Red Data Book of Viet Nam. It occurs in the north of the country and its common name is Lim Xanh. Trade in the species was reported to take place (VN participants, 2007). The VN participants (2007) considered *E. fordii* to be a priority species in the country and proposed carrying out further research on its ecology, distribution, utilisation, planting, and conservation status.

The participants from Cambodia had no information on the species. After the workshop they confirmed that they did not know of any Cambodians with knowledge of the species and suggested that no recommendations should be made of the species in relation to Cambodia (KH participants, 2007), although one report (Dy Phon, P. 2000 Plants used in Cambodia. Imprimerie Olympic, Phnom Penh) notes that the species has the Cambodian common name Tram kang, that it occurs in evergreen forest and that the wood is very resistant to insects and much in demand to make railway short cuts and construction.

## Family

## Species (&amp; Range States)

*Intsia bijuga*

(KH, ID, MY, PH, TH, VN, other)

In **Malaysia**, *I. bijuga* was described as a small coastal swamp tree. Apparently not traded in Malaysia; *I. palenbanica* was reported to be the only *Intsia* species in trade in the country (MY participants, 2007). *I. palenbanica* was in fact considered to be a priority species in Malaysia by the MY participants (2007), and a series of required actions were proposed for it (see comments under *Dactyloctenium stenostachys* for details).

**Thailand** noted that the species is not traded but that it is of conservation concern (TH participants, 2007).

**Cambodia** reported no trade in the species, therefore not a priority species for the country (KH participants, 2007).

In **Indonesia**, *Intsia* spp. will be included on the National list of species threatened by international trade. The national Government is considering CITES Appendix III for *I. palenbanica*, although the local Government apparently just wants it on the Regulations (ID participants, 2007). *Ex-situ* conservation measures are in place for the species in Indonesia. More specifically, protection focusses on seed trees, and only *Shorea* trees over 60 cm in diameter may be harvested (ID participants, 2007). *I. bijuga* was considered a priority species by the ID participants (2007), see comments on *Shorea curtisii* for more details.

Listed as Endangered in the 2007 Red List of the **Philippines**, and no trade was reported in the country.

*I. bijuga* is not on **Viet Nam's** Red list, but the species was reportedly traded in the country.

There was a query regarding how CITES would treat look alike species such as *I. bijuga* and *I. palenbanica* (MY participants, 2007). Saw (2007) proposed much more stringent management plans for lookalike species, in this case for *I. bijuga*. According to this strategy, all range states for all species would need to consider relevant management. Peninsular Malaysia was reported to be the only region completing regular forest inventories, and therefore a system to enable harvesting would be needed (MY participants, 2007).

TRAFFIC participants (2007) considered that CITES could be used for *Intsia*, but noted that more knowledge was required by Government departments on how CITES could be implemented.

**Comments from Cambodia provided after the workshop by Thy (2007):**

**Common name:** Phkay pruk, ko koh praek (Cambodia)

**Syn:** *Afzelia bijuga*, *Afzelia retusa* Kurz (Dy Phon P., 2000)

**Habitat:** Coastal forest and back-mangroves of the coasts.

**Use:** The first grade category wood is used for construction, cablnetwork and electric posts.

Family	Species (& Range States)	Workshop comments
30	<i>Koompassia excelsa</i> (ID, MY, PH, TH, other)	<p><i>K. excelsa</i> is protected under local regulations in <b>Indonesia</b> (ID participants, 2007). It was reported to be usually not cut by local people in <b>Indonesia</b> and <b>Thailand</b>, as it is used by honeybees and people take honey from it (ID &amp; TH participants, 2007).</p> <p>The species is listed as Endangered on the Red List of the <b>Philippines</b> (PH participants, 2007).</p> <p>It was reported by the MY participants (2007) that in the past, the high silicon content of the species' timber was a problem as it blunted chain saws. It could now be harvested, and in fact some trade was reported to take place in Peninsular Malaysia, but currently <b>Malaysia</b> (including Sabah and Sarawak) has protective statutes in place for the species, as it is important for honey bees. It was reported that felling restrictions are in place for the species in the country, and a permit is required (MY participants, 2007). <i>K. excelsa</i> was considered to be a priority species for the Sabah region, and a series of required actions were proposed (MY participants, 2007); see comments under <i>Dactylocladus stenostachys</i> for details.</p>
31	<i>Koompassia grandiflora</i> (ID)	<p><i>K. grandiflora</i> was reported to be used by local people in <b>Indonesia</b> as honey bee habitat. It was also indicated that international trade occurs from Papua (ID participants, 2007).</p>
32	<i>Koompassia malaccensis</i> (ID, MY, TH, other)	<p><i>K. malaccensis</i> was reported to be locally protected in <b>Indonesia</b> as habitat of honey bee, and currently it is not allowed to trade the species in the country (ID participants, 2007).</p> <p>The species was described as a huge tree and an important timber legume (MY participants, 2007). Reportedly widespread in <b>Malaysia</b> and common in lowlands, this species was considered to be highly traded and of unclear conservation concern in the country (MY participants, 2007). It was noted to occur mostly in peat swamps in Sarawak, and is included in Sarawak's list of protected species, as a conservation measure for the species (Julaithi, 2007). It was reported that felling restrictions are in place for the species in the country, and a permit is required (MY participants, 2007).</p> <p>The TH participants (2007) noted that, like <i>K. excelsa</i>, <i>K. malaccensis</i> was honey bee habitat. Both species were considered to be easily distinguishable. Reported to be very common in <b>Thailand</b>, and to be traded but of no conservation concern. It was also indicated that the silicon contents of this species are lower than those of <i>K. excelsa</i>, making it easier to work. It was considered to be very heavy hard wood, but not durable unless treated (in which case it could be very durable) (TH participants, 2007).</p>



*Pterocarpus macrocarpus*  
(KH, LA, TH, VN, other)

*P. macrocarpus* was reported to occur in Cambodia, where it was considered to be rare, protected in natural habitats, and in international trade (Thy, 2007). A seed source area of 59 ha was reported to have been established, with 117 mother trees in the mixture *D. oliveri*, *Xylia dolabriformis*, and *Azelia xylocarpa* (Thy, 2007).

The species was reported to be on the special protected list of Lao P.D.R. and domestic and international trade were reported to occur.

Reported to be "quite common" in mixed deciduous forests in north-east Thailand, and to be not in trade in the country (TH participants, 2007). Kashio (2007) noted that populations in north-east Thailand are mostly plantations, and that it is naturally rare.

The species was reported to be threatened and rare in Viet Nam, where it is listed in the country's Red Data Book (Sam, 2007). Local common names for the species were reported to be Giang Huong and Giang Huong Trai To (VN participants, 2007). Reportedly trade in Vietnam, where the species is considered to be an important timber tree (Sam, 2007).

**Comments from Cambodia provided after the workshop by Thy (2007):**

**Common name:** Thnung Chiem moan FngQamman (Cambodia). **Syn:** *Lingoum cambodianum* Pierre

**Habitat:** Mixed deciduous, sometimes in dipterocarp woodland on rich soil (Khou E.H, *et al*, 2005). Dense deciduous or clear forest up to 700m (Dy Phon P., 2000).

**Threat:** Selective logging and habitat conversion.

**Use:** It is graded as luxury wood in Cambodia. It is used for construction and furniture processing purpose.

**Trade:** Heavily exploited and assumed to be international trade (CTSP, FA, DANIDA).

This species was selectively logged and exported abroad (Ma Sok Tha).

**Conservation Measures:** As one of the rare species, the species is protected in natural habitats and seed source area of 59 ha with 117 mother trees in a mixture of *D. oliveri*, *Xylia dolabriformis*, and *Azelia xylocarpa* were established (So Thea).

**Forest Management and Silviculture:** It is now protected by forestry law. It is a light demanding and drought tolerant tree. Preferably, it grows on well-drainage, light texture soil, but with shallow depth and poor in humus (CTSP, FA, DANIDA).

	Family	Species (& Range States)	Workshop comments
34		<i>Sindora inermis</i> (ID, PH)	<i>S. inermis</i> is listed on the Red List of the Philippines as Vulnerable. No information was available from Indonesia.
35		<i>Sindora supa</i> (PH)	<i>S. supa</i> is listed on the Red List of the Philippines as Endangered.
36		<i>Xylia xylocarpa</i> (KH, LA, PH, TH, VN)	<i>X. xylocarpa</i> was considered to be common in Thailand (TH participants, 2007). The species is listed in the national list of protected species of Lao P.D.R. No information on the conservation status of the species was available from Cambodia. It was reported that the species was traded in the past, but no information was available on current trade. It was noted that big trees have disappeared in the country and that it is used locally. No information was available from the Philippines. Reported to be threatened and rare in Viet Nam and to be locally known as Cam Xe (VN participants, 2007). Considered to be an economically important species in the country (Sam, 2007). The VN participants (2007) considered <i>X. xylocarpa</i> to be a priority species in the country and proposed carrying out further research on its ecology, distribution, utilisation, planting, and conservation status. The species is in trade and there is a trade auction in Yangong Myanmar (Kashio, 2007). <b>Comments from Cambodia provided after the workshop by Thy (2007):</b> <b>Synonym:</b> <i>Xylia dolabriformis</i> Benth. <b>Common name:</b> So kram (Cambodia) <b>Habitat:</b> DDF and MF. <b>Threats:</b> logging, fire and habitat loss. <b>Trade:</b> No exact information, but one operable area of <i>Xylia xylocarp</i> , was located in Ratanakiri Province bordering with Vietnam in 1990s, exported logs to Vietnam.

Family	Species (& Range States)	Workshop comments
37 PINACEAE	<p data-bbox="186 1342 205 1497"><i>Pinus merkusii</i></p> <p data-bbox="230 1226 280 1497">(KH, ID, LA, PH, TH, VN, other)</p>	<p data-bbox="173 77 280 1207"><i>P. merkusii</i> is one of the two species of <i>Pinus</i> present in the Philippines, and is to be listed in the country's Red Data Book. The species used to be abundant in the Philippines, but is now rare in the only two locations where it occurs in the country. Thought unlikely to be in international trade, given its rarity (Madulid, 2007).</p> <p data-bbox="306 77 331 1207">Considered to be a commercial timber tree in Viet Nam, common in plantation forests (Sam, 2007).</p> <p data-bbox="356 77 406 1207">Reported to be in the list of protected species in Lao P.D.R. and to be mostly found on the country's mountaintops (LA participants, 2007).</p> <p data-bbox="432 77 482 1207"><i>P. merkusii</i> was reported to be widely planted in Thailand, especially in the north of the country, yet not for trade purposes, but to protect the soil (TH participants, 2007).</p> <p data-bbox="507 77 608 1207">Widely planted in Indonesia, including Java, for resin production. Not considered to be of conservation concern. Exported from natural populations to Japan during the 1980s (ID participants, 2007). Conservation measures including policy measures, administrative management prescriptions, and restrictions were reported to be in place</p> <p data-bbox="633 77 684 1207">Johnson (2007) noted that there is a significant area of plantations in Papua New Guinea, from where the species is exported, but Leach (2007) pointed out that the species is possibly not native to PNG.</p> <p data-bbox="709 77 724 1207">Large natural and planted populations exist in continental South East Asia countries (Kasio, 2007).</p>
Comments from Cambodia provided after the workshop by Thy (2007):		
<p data-bbox="791 77 1131 1207"><b>Common name:</b> Kim, Phat Nopheal, Sral. <b>Habitat:</b> <i>Pinus merkusii</i> is only species of pine in Cambodia. Pine forests occur only on the Kirirum plateau where trees exceed 20m in height and possess boles of 50-60cm in diameter. Pines are frequently associated with more fire-tolerant broad-leave trees such as species of <i>Dipterocarpus</i> and <i>Shorea</i> on certain summits and ridges along the southerly fall of the Cardomome ranges. They also occur in a variety of associations near Mondulkiri in the northeast, in lowland areas around the Great Lake such as in Kompong Thom and near Surin in Thailand (David a.). <b>Threats:</b> Habitat loss and seasonal fires. <b>Forest management and silviculture</b> Regrows well from seed in the natural habitat. Easily damaged by fire. Rangers have been employed to protect the pine forest in Kirirum National Park. Two fire trucks are standby to put out fire in case it happens. Awareness raising has been mainstreamed among local community around the areas. <b>Trade:</b> In the 1980s Cambodia exported log of <i>Pinus merkusii</i> to Japan and Germany. The exact amount is unknown, but it was unofficially estimated about 7000-8000 cubic meters, according to a forester.</p>		



Family	Species (& Range States)	Workshop comments
	<i>Pinus merkusii</i> cntd.	<p><b>Conservation measures:</b> Pine plantation was 225 ha from 1915 to 1972 in degraded area (Ma sok Tha). FA planted 1000ha of <i>P. merkusii</i> according to CSTP staff, Oun Sam ol. Kirirum National Park, MoE has reconstructed 4000 seedlings in the degraded area in the natural coniferoushabitat in 2004-2006, According Kirirum National Park Director, Heng Kuang.</p>
38	PROTEACEAE  <i>Alloxylon brachycarpum</i> (ID)	<p>No information on trade or conservation status could be identified for <i>A. brachycarpum</i> in <b>Indonesia</b> (ID participants, 2007).</p> <p>Reference was made to the listing of the species as Endangered in the IUCN Red List.</p>
39	SAPOTACEAE  <i>Madhuca pasquieri</i> (VN)	<p><i>M. pasquieri</i> is listed as Rare in the Red Data Book of Viet Nam.</p> <p>Described as a big tree, this species was reported to be an important commercial timber tree. Used also for medicine (VN participants, 2007).</p>
40	<i>Manilkara kanosensis</i> (ID)	<p>The VN participants (2007) considered <i>M. pasquieri</i> to be a priority species in the country and proposed carrying out further research on its ecology, distribution, utilisation, planting, and conservation status.</p> <p>No information on <i>M. kanosensis</i> was available from <b>Indonesia</b>, except that it is traded from Papua New Guinea (Triono, 2007). It was also noted that Sapotaceae experts are based at the Royal Botanic Gardens Edinburgh, UK (contact person: Peter Wilkie).</p>

Table 2. Timber tree species in international trade, of possible conservation concern.

Family	Species (& Range States)	Workshop comments
1 CELASTRACEAE	<i>Lophopetalum javanicum</i> (ID, MY, PH, TH)	<p><i>L. javanicum</i> was reported to occur in Kuchuan forest. Considered to be present both in the wild and in plantation forests, it is reportedly cultivated in Java, Sumatra and Kalimantan, where the species, together with <i>L. beccarianum</i>, was reported to have become a priority for local community forest development. Local communities in <b>Indonesia</b> plant it because of its fruits, which is making the species widespread, although it was suggested that it may be threatened by habitat degradation (Walujo &amp; Setyawati, 2007). It was considered to be traded internationally and of conservation concern in <b>Indonesia</b> (Komar, 2007).</p> <p>In <b>Sarawak</b>, the species was reported to be found in lowland mixed dipterocarp forests, and to be in demand due to its beautiful timber used for furniture and internal decoration (Julaihi, 2007).</p> <p>No records exist on whether the species is traded internationally from the <b>Philippines</b> (Madulid, 2007).</p>
2	<i>Lophopetalum multinerviium</i> (ID, MY, other)	<p>The comments from <b>Indonesia</b> for <i>L. javanicum</i> were considered to apply to this species as well.</p> <p>Cutting limits were reported to be in place for the species in <b>Malaysia</b> (MY participants, 2007).</p>
3	<i>Lophopetalum pachyphyllum</i> (ID, MY)	<p>The comments from <b>Indonesia</b> for <i>L. javanicum</i> were considered to apply to this species as well.</p> <p>Cutting limits were reported to be in place for the species in <b>Malaysia</b> (MY participants, 2007).</p>
4	<i>Lophopetalum rigidum</i> (ID, MY, other)	<p>The comments from <b>Indonesia</b> for <i>L. javanicum</i> were considered to apply to this species as well.</p> <p>Cutting limits were reported to be in place for the species in <b>Malaysia</b> (MY participants, 2007).</p>
5 CHRYSOBALANACEAE	<i>Parinari costata</i> (ID, MY, PH, other)	<p><i>P. costata</i> was reported to have very hard timber known as “stony wood”, which is very difficult to saw. Reportedly not used for charcoal. The species was considered to be slow-growing and very rare in <b>Sarawak</b> (Julaihi, 2007), although Chua (2007) questioned whether it really is so rare.</p> <p>The species was also considered to be rare in <b>Indonesia</b> (Komar, 2007).</p> <p>It was reported that no records exist of the species being traded in the <b>Philippines</b> (Madulid, 2007).</p>

# Workshop comments

6		<i>Parinari oblongifolia</i> (ID, MY, other)	It was considered that the same comments would apply to all <i>Parinari</i> species (see <i>P. costata</i> ).
7	EBENACEAE	<i>Diospyros rumplii</i> (ID)	<i>D. rumplii</i> was reported not to occur in Malaysia. Occurrence reported only in <b>Indonesia</b> , and it was therefore suggested that the species be excluded from the list. It was noted that orang-utans do not occur within the distribution range of <i>D. rumplii</i> (Setyawati, 2007). Protection and regulation measures were reported to be in place in the country for <i>Diospiros</i> spp., and harvesting to be restricted to trees of over 60 cm in diameter (ID participants, 2007).
8	FLACOURTIACEAE	<i>Hydnocarpus sumatranus</i> (ID, MY, PH, TH)	No information on conservation status was available for <i>H. sumatranus</i> in the <b>Philippines</b> . No records of trade in the species were reported from the country (Madulid, 2007).  No information on the conservation status of the species was reported to be available in <b>Indonesia</b> . It was considered that it is probably traded in the country (Komar, 2007).  Considered to be rare in <b>Thailand</b> , but it is not listed in the country's Red Data Book (TH participants, 2007).  It was reported to be a big tree with timber value in <b>Sarawak</b> , where the whole family was said to be traded as Senumpul. Not much data was reported to be available on its status, but it was considered as not very widespread in <b>Sarawak</b> (Julaihi, 2007). It was reported to be widespread in <b>Sabah</b> (Sugau, 2007).
9	GUTTIFERAE	<i>Calophyllum canum</i> (ID, MY, other)	<i>C. canum</i> is reportedly traded in <b>Malaysia</b> as a group (consisting of the whole family) under the name Bintangor. Cutting limits were reported to be in place for the species in <b>Malaysia</b> (MY participants, 2007).  It was also reported to be traded in <b>Indonesia</b> . It was noted that information on distribution in some Indonesian islands was lacking, and that efforts are being made to propose conservation measures for the species in the country, as it has potential as a medicinal plant (Setyawati, 2007).



Family	Species (& Range States)	Workshop comments
10	<i>Calophyllum carrii</i> var. <i>longigenimatum</i> (ID)	<i>C. carrii</i> var. <i>longigenimatum</i> is not traded individually, but as a group together with other <i>Calophyllum</i> species, and no trade name exists for only this species (Hua-Seng & Setyawati, 2007).  It was reported that it was unclear whether the species is traded internationally from <b>Indonesia</b> , since trade in this species is low-level even within Indonesia. It was further pointed out that in Indonesia, where several <i>Calophyllum</i> species occur, these species would likely be all treated in the same way (Setyawati, 2007).  Leach (2007) noted that there is international trade in the species from Papua New Guinea.
11	<i>Calophyllum insularum</i> (ID)	As for <i>C. euryphyllum</i> , not enough data on distribution of <i>C. insularum</i> was considered to be available in <b>Indonesia</b> , therefore it was not clear whether the species is a single country endemic (Setyawati, 2007).
12	<i>Calophyllum papuanum</i> (ID)	As for <i>C. euryphyllum</i> , not enough data on distribution of <i>C. papuanum</i> was considered to be available in <b>Indonesia</b> , therefore it was not clear whether the species is a single country endemic (Setyawati, 2007).
13	<i>Albizia splendens</i> (ID, MY, TH, other)	<i>A. splendens</i> was reported to be quite rare and confined to lowland forests in <b>Thailand</b> , where no trade was known to take place (TH participants, 2007).  The species is not listed on <b>Indonesia's</b> Red List. It was reported not to be in trade in the country, and to reach heights of 30 meters (Partomihardjo, 2007).  This species was reported to have a scattered distribution and to be found in most lowland forests in <b>Malaysia</b> , but no information on conservation status was available for the country. <i>A. splendens</i> is on the list of traded species in Malaysia, where it is traded as Kungkur (MY participants, 2007).
14	<i>Syzygium flosculifera</i> (MY)	It was reported that <i>S. flosculiferum</i> can become quite big, and that it is a relatively widespread lowland species in <b>Malaysia</b> . Reported to be in trade under the genus-wide name Kelat (Chua, 2007).
15	<i>Syzygium koordersiana</i> (MY)	<i>S. koordersianum</i> was considered to be a widespread lowland species. The whole genus was reported to be traded as Kelat.

Family	Species (& Range States)	Workshop comments
16	<i>Syzygium ridleyi</i> (MY, TH, other)	<p><i>S. ridleyi</i> was considered to be rare but not threatened in <b>Thailand</b>, where data on the species was noted to be poor (TH participants, 2007).</p> <p>The species is very widely distributed in <b>Malaysia</b> according to Chua (2007). It was considered that since it is not a very big species it is perhaps not in trade (Chua, 2007), however Julaihi (2007) argued that it has a big but rather short bole, and is therefore good for timber, and that it is harvested in second cutting, as there is demand for any timber these days (Julaihi, 2007).</p>

Family Species (& Range States) Workshop comments

17 PODOCARPACEAE

*Podocarpus nerriifolius*  
(KH, ID, LA, MY, PH, TH, VN,  
other)

*P. nerriifolius* was reported to be common in **Indonesia**, especially at high altitudes. It was noted during the workshop that the species is planted in the country, and that it is traded locally, but not internationally (Partomihardjo, 2007). The Indonesian participants, however, reported after the workshop that, based on Abdurrohman *et al.* (2004), this species is in fact traded internationally. [Abdurrohman, S., Mandang, Y.I., & Sutisna, U. (Ed.) 2004. *Atlas Kayu Indonesia* Jilid III. Departemen Kehutanan, Badan Penelitian dan Pengembangan Kehutanan, Pusat Penelitian dan Pengembangan Teknologi Hasil Hutan. Bogor].

Reported to occur above 800 m in **Cambodia** (Thy, 2007). The species is not threatened due to the height at which it grows (Thy, 2007).

Occurrence in **Thailand** reported from sea level to high mountains. The species is considered to be threatened and is listed in the country's Red List (TH participants, 2007).

Reported to be rare in **Viet Nam**, this species is listed in the country's Red Data Book. No information on trade in the species was available from the country (Sam, 2007).

The species is not listed in the list of threatened plants of the **Philippines**. No records of trade were reported from the country (PH participants, 2007).

No records of trade were reported from **Malaysia** either (MY participants, 2007).

No trade records or information on the species were available from **Lao P.D.R.** (LA participants, 2007).

**Comments from Cambodia provided after the workshop by Thy (2007):**

**Common name:** Srol Rs (Cambodia)

**Habitat:** Usually found scattered at higher attitude up to 1600m in hill, upper hill evergreen forest and sub-mountain forest. Probably occurs in lowland forest near coastal area.

**Population status and trends:** The species is relatively uncommon and due to habitat preference at higher attitude, its status is probably untouched.

**Threats:** No reported threats.

**Use:** Used as a second grade wood for construction (Dy Phon P., 2000).



Family

Species (& Range States)

Workshop comments

18	SAPOTACEAE	<i>Madhuca betis</i> (ID, PH)	<p><i>M. betis</i> was reported to be on the list of threatened species in the Philippines, but no international trade was recorded from the country (PH participants, 2007).</p> <p>The species was considered to be a big tree of up to 43 meters (Triono, 2007), with beautiful timber of good texture (Julaihi, 2007).</p> <p>Reported to be very rare in <b>Indonesia</b> (with densities of 1 individual/ha), it was noted that Tim Laman mentioned it as orang-utan food. The species is sold as a group (<i>Madhuca</i>), but it is not recorded in international trade in Indonesia (Triono, 2007). <i>M. betis</i> was considered a priority species by the ID participants (2007), see comments on <i>Shorea curtisii</i> for more details.</p> <p>Reportedly traded in <b>Malaysia</b> under the name Nyatoh, which includes 20 species of four genera (<i>Madhuca</i>, <i>Palaquium</i>, <i>Planchionella</i>, and <i>Pouteria</i>).</p>
19		<i>Madhuca boerlageana</i> (ID)	<p>The species was reported to be in trade (Julaihi, 2007).</p>

Table 3. Timber tree species possibly in international trade and of conservation concern, but in need of taxonomic revision.

Family		Species (& Range States)	Workshop comments
1	ARAUCARIACEAE	<i>Agathis borneensis</i> (ID, MY, other)	<p><i>A. borneensis</i> was reported to have very limited regeneration in Kalimantan (Komar, 2007).</p> <p>It was reported that in Malaysia, good populations exist in protected areas (Chua, 2007). 120,000 m<sup>3</sup> of logs were reported to be exported annually from Malaysia, especially from Sabah, and also from Sarawak. The amount of exported sawn timber from the country was noted to be smaller, at 10,000 m<sup>3</sup> annually (Jumat, 2007). Julaihi (2007) reported exports of 170,000 to 300,000 m<sup>3</sup> of logs yearly during the last 10 years from Sarawak.</p> <p>Taxonomic confusion was evident for some participants, less so for others:</p> <p>In Malaysia, both species were considered to be only one (Chua &amp; Julaihi, 2007) and <i>Agathis</i> timber was reportedly identified at the genus level only (Julaihi, 2007).</p> <p>In the Philippines, <i>A. dammara</i> was not reported to occur, as the species considered to occur in the country was <i>A. philippinensis</i>, which was reported to be protected and of no conservation concern. It was suggested that reported occurrence of <i>A. dammara</i> in the Philippines derived from the fact that <i>A. philippinensis</i> had in the past been considered a synonym of <i>A. dammara</i> (Madulid, 2007).</p> <p>In Indonesia, <i>A. borneensis</i> and <i>A. dammara</i> were initially reported to be confused (Setyawati, 2007). However, further discussion and literature research (Whitmore, T.C and Tantra, I.G.M. 1986. Tree flora of Indonesia: Check list for Sumatra. Forest Research and Development Centre, Bogor) by the Indonesian participants concluded that there are clear differences between <i>A. borneensis</i> and <i>A. dammara</i>, and that <i>A. borneensis</i> has four synonyms: <i>A. beccarii</i> Warburg, <i>A. endertii</i> Meijer Dress, <i>A. latifolia</i> Meijer Dress, and <i>A. rhomboidalis</i> Warburg.</p> <p>Saw (2007) suggested that the problem may have more to do with species identification than with real taxonomic confusion, and pointed out that Farjon (based at Kew) is a taxonomic expert in this group. Triono (2007) argued that there seems to be a species concept problem.</p> <p>It was suggested that, given the important taxonomic confusion of <i>Agathis</i> species, and the significance of these species in the trade, there should be further studies on the taxonomy of the genus. It was therefore agreed by the 2007 Workshop Participants that a proposal should be put forward to find funds for the much-needed study.</p>

Family	Species (& Range States)	Workshop comments
2	<i>Agathis dammara</i> (ID)	<i>A. dammara</i> was reported to be widespread in <b>Indonesia</b> (Setyawati, 2007), and to have been widely planted in Java (Komar, 2007). Also, see comments for <i>A. borneensis</i> .
3	<i>Agathis endertii</i> (ID, MY)	See comments for <i>A. borneensis</i> .
4	EBENACEAE <i>Diospyros blaucoi</i> (MY, PH)	It was questioned whether <i>D. blaucoi</i> was a separate species (Tan, 2007). It was considered to be a synonym of <i>D. discolor</i> (Madulid, 2007). <i>D. discolor</i> is listed in the <b>Philippines'</b> Red List. It was not clear whether the species is traded from the country, since the genus as a whole is reportedly traded as ebony, and no species-specific information was available (Madulid, 2007). Occurrence of the species was also reported for <b>Sabah</b> and <b>Sarawak</b> (Abdulla, 2007).

Family	Species (& Range States)	Workshop comments
5	<p><i>Diospyros ferrea</i> (ID, LA, MY, PH, TH, VN, other)</p>	<p><i>D. ferrea</i> was reported to be commonly known as Sea Ebony. The species is not recognized taxonomically in Cambodia (Thy, 2007). It is in the Red List of the Philippines. No records of trade were reported in the country (Madulid, 2007).</p> <p>It was reported to occur in Sarawak and Peninsular Malaysia.</p> <p>Occurrence also reported in Viet Nam, but no information on trade in the species was available from the country.</p> <p>No information was identified for this species in Laos P.D.R., and it was pointed out that the country has no coast.</p> <p>In Indonesia, the species was considered to be widespread but to possibly have low population levels (Partomihardjo, 2007).</p> <p>The genus <i>Diospyros</i> was considered to be traded in small volumes, for specific uses (Kashio, 2007).</p> <p>It was suggested that information on the conservation status of the species given by an expert from Papua New Guinea (see background document) may not be appropriate to the Southeast Asia region (Soh, 2007).</p>
6	<p>LEGUMINOSAE</p> <p><i>Dalbergia bariensis</i> (KH, LA, TH, VN)</p>	<p>It was reported that in Cambodia, <i>D. bariensis</i> is considered to be a synonym of <i>D. oliveri</i>. It was noted that a 71.5-ha conservation area for the species exists in the country. It was also indicated that the local name for the species is Neang Noun (Thy, 2007).</p> <p>In Lao P.D.R., the species was considered to be endangered and is included in the country's list of species under special protection. Locally known as Kampi (LA participants, 2007).</p> <p>In Viet Nam, a number of synonyms exist for this species, namely: <i>D. oliveri</i>, <i>D. bariensis</i>, and <i>D. mammosa</i>. Locally known as Cam Lai and Cam Lai Ba Ria (VN participants, 2007). The species was reported to be listed in the country's Red Data Book (Sam, 2007).</p>



*Dalbergia bariensis*  
cntd.

It is currently treated as an accepted species in **Thailand**, but this is under revision in the country. Until the revision is complete, the situation is unclear, and it was suggested that Chayamarit should provide information on who is carrying out the revision, so that the botanists involved can be contacted (TH participants, 2007).

**Comments from Cambodia provided after the workshop by Thy (2007):**

**Synonyms:** *D. oliveri* Pierre, *D. dongnaiense* Pierre, *D. duperrana* Pierre. (Dy Phon P., 2000)

**Common name name:** Neang Nuan (Cambodia)

*Dalbergia lanceolaria* Pierre (Local name: Laing) is very close to *D. oliveri*, with the same quality of wood and price. Proposed to put in IUCN red list category and international trade same as *D. oliveri*.

**Habitat:** Rare tree species distributed sparsely or in groups of 5-10 individuals in open dipterocarp, semi-evergreen and dense evergreen forest (CTSP, FA, DANIDA, 2003) to hill evergreen forest up to 1100m (Dy Phon P., 2000).

**Population status and trends:** Native to Cambodia. It widely occurs in the forested areas in Cambodia. Due to high demand in furniture processing, the species has become rare and the remaining standing trees are so small. However, seedlings and saplings were observed commonly regenerating from seed and coppice in deciduous dipterocarp and mixed deciduous forest, which are severely afflicted from seasonal fire (observation).

**Threats:** Over harvesting, habitat degradation.

**Conservation measures:** Plantation of the species has not been made, but CTSP has established in situ conservation areas of 71.5 ha with number of mother trees of 157 bolds for the species protection and seed source in the natural forests (So Thea, CTSP, DFW).

**Forest management and silviculture:** It is illegal to cut the tree. The species is protected by law. The species has never been permitted to cut in Cambodia. Cutting luxury tree must be allowed by special permission of Minister of MAFF (Forestry law). However, illegal logging is still going on causing the species to rapid decline in recent years.

Family	Species (& Range States)	Workshop comments
7	<i>Dalbergia cambodiana</i> [also listed in table 1] (KH, VN)	See Table 1.

Table 4. Timber tree species in international trade, not considered to be of conservation concern

FAMILY	Species (& Range States)	Workshop comments
1 ANACARDIACEAE	<i>Mangifera decandra</i> (ID, MY, other)	<p><i>M. decandra</i> was reported to be widely distributed in Sabah, where it is reportedly found on coastal protected areas (Sugau, 2007). In Sabah, the harvesting of this species is prohibited, except if it is farmed in private land, in which case it can be traded (Sugau, 2007).. <i>M. decandra</i> is traded in Malaysia, although management measures were reported to exist in the country to protect the species and the felling of fruit species is not allowed. However, the existence of problems with the identification of its wood was noted (Chua, 2007).</p> <p>The species was considered to be common in Kalimantan (Setyawati, 2007). Saw (2007) questioned why participants considered it of no conservation concern.</p>

FAMILY	Species (& Range States)	Workshop comments
2 APOCYNACEAE	<i>Dyera costulata</i> (ID, MY, TH, other)	<p><i>D. costulata</i> was considered to be very widespread in <b>Malaysia</b>, with many populations occurring in protected areas. Reported to regenerate easily, it was also noted that the species is planted in the country, and that it has been harvested sustainably. The threatened status of the species in Peninsular Malaysia from 1994 was considered to be possibly no longer valid (Chua, 2007). Saw &amp; Rafae (2007) also considered the species to be common in Malaysia. Chua (2007) added that the species is rare in Thailand and even northern Malaysia only because that is its biogeographical boundary. Jumat (2007) reported that in the last four years there have been no exports of Jelutong, but that export of logged timber has taken place. It was also indicated that this species is particularly used to manufacture pencils and that four factories in Malaysia do manufacture pencils for export (Jumat, 2007).</p> <p>In <b>Indonesia</b>, the species was considered to be of no conservation concern and to be successfully cultivated in some areas. It was reported to be traded internationally from the country (Komar, 2007).</p> <p>It was reported to be listed in the Red Data Book of <b>Thailand</b>, and also in the Red Data Book of <b>Singapore</b>.</p>
3 ARAUCARIACEAE	<i>Araucaria cunninghamii</i> (ID, MY)	<p><i>A. cunninghamii</i> was not considered to be occurring naturally in <b>Malaysia</b>, only introduced. Described as a beautiful ornamental tree, it was reported to occur in plantations in Sarawak, but as an ornamental tree rather than for timber (Julaihi, 2007).</p> <p>In <b>Indonesia</b>, natural occurrence was reported from west Papua, where it was not considered to be overexploited. It was also noted that in Java the species is used as an ornamental tree (e.g. in parks), but not for commercial plantations (Komar, 2007).</p> <p>The species is reportedly exported from Australia (Komar, 2007), Papua New Guinea, and Irian Jaya (Saw, 2007).</p>

FAMILY	Species (& Range States)	Workshop comments
4 BOMBACACEAE	<i>Durio dulcis</i> (ID, MY)	<p><i>D. dulcis</i> was reported to occur in protected areas in <b>Malaysia</b>, but no specific information on its conservation status was identified. The genus <i>Durio</i>, as fruit trees, are protected and cannot be harvested in the country, however it was noted to be in international trade (Chua, 2007). Durian is the term used by the trade industry for the whole genus. No durian logs were exported from Malaysia in the last five years (2002-2006), but exports of sawn timber were recorded, with an annual average of 15,000 m<sup>3</sup> during 2004-2006 (Jumat, 2007).</p> <p>The situation was considered to be similar in <b>Indonesia</b> (ID participants, 2007). In east Kalimantan, the species was reported to have been recorded at densities of 0.9 individuals/ha (Setyavati, 2007).</p>
5	<i>Durio kutejensis</i> (ID, MY, other)	<p>It was suggested that <i>D. kutejensis</i> should be treated in the same way as <i>D. dulcis</i>.</p> <p>No concrete information was identified on the conservation status of the species, except that it is possibly common in <b>Indonesia</b> (Partomihardjo, 2007).</p> <p>The species was reported to be important for its fruits, rather than for its timber, and no international trade in the species' timber was considered to take place (Julaihi, Saw &amp; Hin-Keong, 2007).</p>



FAMILY	Species (& Range States)	Workshop comments
6 BURSERACEAE	<i>Santiria laevigata</i> (ID, MY, PH, TH, other)	<p>It was reported that <i>S. laevigata</i> does occur in peninsular <b>Thailand</b>, where it was considered to be rare. It is included in the country's Red Data Book (Chayamarit, 2007). It was speculated that rarity of the species in Thailand may be due to biogeographical reasons, that being the natural boundary of the species' range.</p> <p>In <b>Kalimantan</b>, the species was reported to be common, particularly in logged areas, since it apparently grows quickly after the forest is logged. It was not clear whether it is traded internationally from Indonesia (Setyawati, 2007).</p> <p>Despite the existence of numerous <i>Santiria</i> species, trade figures for this genus are very low in <b>Sarawak</b>. The species was therefore considered to be probably not in international trade from the country (Julaihi, 2007).</p> <p>No information on trade in the species was available from the <b>Philippines</b> (Madulid, 2007).</p>
7	<i>Trionmia malaccensis</i> (ID, MY, other)	It was considered that the comments for <i>Santiria</i> would also apply to <i>T. malaccensis</i> .
8 DATISACEAE	<i>Octomeles sumatrana</i> (ID, MY, PH)	<p><i>O. sumatrana</i> was reported to be widespread in lowland forests in <b>Indonesia</b>, and particularly in Sumatra. It is categorised as a low priority species in the country. While no specific information on trade was identified, it was reported that the species is used for items such as boxes and furniture, as it is very light (Setyawati, 2007).</p> <p>The species was reported to be traded a lot in <b>Sarawak</b>, where it was still considered to be safe. Noted to be a fast-growing species, it was reported to be found in river banks, and to be introduced for planting in forest plantations, as it is fast growing in Sarawak, but problems were reported to exist as the species is site-specific (Julaihi, 2007).</p>

FAMILY	Species (& Range States)	Workshop comments
9 LAURACEAE	<i>Delhaasia caesia</i> (ID, MY, VN, other)	<i>D. caesia</i> was reported to occur in Viet Nam, but no information on trade was available from the country. The whole family is reportedly traded in Malaysia as Medang. In Indonesia, it was reported to be usually traded in group as Medang.
10	<i>Delhaasia cuneata</i> (KH, ID, MY, TH, VN)	<i>D. cuneata</i> was reported to occur in Viet Nam (Sam, 2007) and Cambodia. (Thy, 2007). Thy (2007) does not consider it to be a priority species Reported as threatened in Thailand, but not listed in the country's Red Data Book (TH participants, 2007). The species was reported to be traded from Indonesia as Medang (Partomihardjo, 2007). Suspected to be also in trade as Medang from Malaysia (Julaihi, 2007). Comments from Cambodia provided after the workshop by Thy (2007). Common name: atith or nieng pha-aek GaTitü nagEpÿk (Cambodia) Habitat: Mixed deciduous forest. Use: Second grade category wood is used for construction (Dy Phon P., 2000)
11 LEGUMINOSAE	<i>Sindora beccariana</i> (ID, MY, other)	<i>S. beccariana</i> was considered to have beautiful wood (Julaihi, 2007), and to be traded as a group. It was reported to be very rare in Indonesia, and no information on international trade was identified from the country. The local trade name for the whole genus was reported to be Sindur. The species was considered to be of no conservation concern in Malaysia, where related look alike species were reported to be in trade. The local trade name for the whole genus is Sepetir.
12 OLACACEAE	<i>Ochanostachys amentacea</i>	<i>O. amentacea</i> was reported to be very common in Malaysia (Saw, 2007), including

FAMILY	Species (& Range States)	Workshop comments
	(ID, MY, other)	Sarawak, from where it was not considered to be traded (Julaihi, 2007). In <b>Indonesia</b> the species forms a big tree with a widespread population and recorded densities of 7 individuals/ha, also known to grow in secondary forests. International trade in the species from Indonesia was reported to take place.
13	SAPOTACEAE <i>Palaquium impressinervium</i> (MY, TH)	<i>P. impressinervium</i> was reported to be rare in <b>Thailand</b> , but not in the country's Red Data Book. The species was considered to be widespread in <b>Malaysia</b> , and to be traded as a group.
14	<i>Palaquium maingayi</i> (MY, TH)	<i>P. maingayi</i> was reported to be rare but not threatened in <b>Thailand</b> . The species was considered to be widespread in <b>Malaysia</b> , and to be traded as a group.
15	STERCULIACEAE <i>Pterocymbium beccarii</i> (ID)	<i>P. beccarii</i> occurs in <b>East Java</b> but it was not reported to be in trade from there. It was noted that trade occurs mainly from Oceania.
16	VERBENACEAE <i>Gmelina arborea</i> (KH, LA, MY, PH, TH, VN, other)	<i>G. arborea</i> was considered to be in international trade, but of no conservation concern. No further details were obtained on the species. The taxonomic name was not recognized by the Cambodian delegates (Thy, 2007).

FAMILY	Species (& Range States)	Workshop comments
17	<i>Tectona grandis</i> (KH, ID, LA, MY, TH, VN, other)	<p><i>T. grandis</i> was considered to be in international trade, but of no conservation concern. No further details were obtained on the species.</p> <p>Comments from Cambodia provided after the workshop by Thy (2007).</p> <p>Common name: Maisak. Émsak (Cambodia)</p> <p>Habitat: Deciduous forest in lowlands.</p> <p>Population status and trends: No current reports of logging. The species is grown in plantations.</p>



Table 5. Timber tree of conservation concern not thought to be in international trade

Family		Species (& Range States)	Workshop comments
1	BURSERACEAE	<i>Canarium luzonicum</i> (PH)	<i>C. luzonicum</i> is listed as threatened in the Philippines and collection and trade are prohibited in the country. It was noted that the species used to be traded, but not any more because of the recent listing. It was further added, however, that some illegal felling occurs but that no data on timber trade is available for the species (PH participants, 2007). No imports were reported according to ITTO (Johnson, 2007). Trade in non-timber products, namely resin and fruits, was reported to take place. The resin extraction was considered to be sustainable, as it does not kill the tree (Palis, 2007).
2	CEPHALOTAXACEAE	<i>Cephalotaxus oliveri</i> (LA, VN)	It was pointed out that <i>C. oliveri</i> does not occur in <b>Thailand</b> (Chayamarit, 2007).  In <b>Viet Nam</b> the species was reported to occur between 600-1500 m a.s.l. in primary forests. It was reported to be rare and to occur in only a small area of northern Viet Nam. The species is listed in the country's Red Data Book. It was considered not to be of high economic value (Sam, 2007).  The species was reported to occur in <b>Lao P.D.R.</b> , where it was not considered to be very common (Phothisat, 2007).  Sam (2007) indicated that the species' name has now changed to <i>C. mannii</i> .  No international trade was reported.
3	FAGACEAE	<i>Fagus longipetiolata</i> (VN)	<i>F. longipetiolata</i> was reported to occur between 1500 and 2000 m a.s.l. in <b>Viet Nam</b> . The species is listed in the country's Red Data Book, and it was reported that it is protected in a National Park in northern Viet Nam. No information on international trade was identified (Sam, 2007).

Family	Species (& Range States)	Workshop comments
4 LAURACEAE	<i>Cinnamomum porrectum</i> (ID, TH, VN, other)	<p><i>C. porrectum</i> was reported to be widely distributed in yet rare in <b>Java</b>. No timber trade was reported to take place. It was pointed out that the species is considered to have some potential as an HIV cure, and LIPI (the Indonesian Institute of Sciences) is collaborating to study this (Setyawati, 2007).</p> <p>The species was reported to be rare in <b>Viet Nam</b>, although it is not listed in the country's Red Data Book. No information on trade was identified (Sam, 2007).</p> <p>It <b>Thailand</b>, the species was not considered to be threatened nor rare, and it was noted that its wood (from plantations) is used for handicrafts, as it has a nice scent (TH participants, 2007).</p> <p>It was reported to be a very common tree in <b>Malaysia</b> (Abdullah &amp; Chua, 2007).</p>
5 LEGUMINOSAE	<i>Afzelia rhomboidea</i> (ID, MY, PH)	<p><i>A. rhomboidea</i> is included in the <b>Philippines'</b> Red List, and felling of the species was reported to be prohibited in the country, from where no trade was considered to take place (Manila, 2007).</p> <p>In <b>Malaysia</b>, no information on the species' conservation status was available, and no trade in the species was reported from the country (Saw, 2007).</p> <p>It is in the list of protected species of <b>Indonesia</b>, where no trade was reported, except for possibly domestic trade in <b>Java</b> (Partomihardjo, 2007).</p>
6	<i>Kalappia celebica</i> (ID)	<p><i>K. celebica</i> was reported to be an endemic species from <b>Indonesia</b>. No data was identified on the trade or conservation status of the species.</p>
7	<i>Pericopsis mooniana</i> (ID, MY, PH)	<p>Most trade in <i>P. mooniana</i> was considered to be historic, and very little current trade was thought to take place.</p> <p>No trade was reported from <b>Malaysia</b> (MY participants, 2007).</p> <p>The species is listed as Vulnerable on the Red List of the <b>Philippines</b> (PH participants, 2007).</p> <p>It was considered to be very rare in <b>Indonesia</b> (ID participants, 2007).</p>

Family	Species (& Range States)	Workshop comments
8	<i>Wallaceodendron celebicum</i> (ID, PH)	<p><i>W. celebicum</i> was reported to be very rare in northern Sulawesi, and no information on trade in the species was available from the area (ID participants, 2007).</p> <p>It is listed in the Red List of the Philippines, where it was regarded as endangered (PH participants, 2007).</p> <p>The species was not considered to be in trade.</p>
9	MELIACEAE <i>Aglaia perviridis</i> (MY, TH, VN)	<p><i>A. perviridis</i> was reported to be Critically Endangered in Thailand, and in the country's Red Data Book (TH participants, 2007).</p> <p>It was noted that the species was recorded only once in Peninsular Malaysia, and that it is unlikely to be in trade from the country (Saw, 2007).</p> <p>It was reported to be a common tree in Viet Nam, but no information on international trade in the species was available (VN participants, 2007).</p>

Family	Species (& Range States)	Workshop comments
10	<i>Aglaia silvestris</i> (ID, MY, PH, TH, VN)	<p>The timber of <i>A. silvestris</i> was reported to be of no commercial value. However, the species is harvested in <b>Sarawak</b> in order to extract a chemical considered to have potential for cancer cure. It was suggested that if the species' anticancer potential is published, harvest could become of concern (Julaihi, 2007).</p> <p>It was considered to be widespread and common in <b>Indonesia</b>, with recorded population densities of 3.6 individuals/ha. No international timber trade was reported from the country (Partomihardjo, 2007).</p> <p>The species is considered to be threatened in the <b>Philippines</b>, and it is listed in the country's Red Data Book. No trade in the species was known to take place (Palis, 2007).</p> <p>In <b>Viet Nam</b> the species was reported to be common and of no commercial value (Sam, 2007).</p>
11	<i>Toona calantans</i> (ID, MY, PH)	<p>The species' status in <b>Thailand</b> was considered to be uncertain, as it is under taxonomic revision (TH participants, 2007).</p> <p>The taxonomic name is not recognized and it is therefore not considered to occur, in <b>Cambodia</b> (Thy, 2007).</p> <p><i>T. calantans</i> is listed in the <b>Philippines'</b> Red List as Critically Endangered (Palis, 2007).</p> <p>Occurrence was reported from <b>Sarawak</b>, where it was considered to be very rare. No trade information was available from this region.</p> <p>It is reportedly not listed as a protected species in <b>Indonesia</b>, and no information on international trade was identified from the country (Partomihardjo, 2007).</p>



Family		Species (& Range States)	Workshop comments
12	OLACACEAE	<i>Strombosia javanica</i> (ID, MY, TH, other)	<p><i>S. javanica</i> was reported to be rare in <b>Thailand</b>, but not listed in the country's Red Data Book.</p> <p>In <b>Indonesia</b>, the species was reported to occur mostly in lowland forests in Java and Sumatra, and to be listed in the country's Red List. Described as a big tree with good wood and very hard timber, this species is reportedly smuggled out from Indonesia into Malaysia, although no specific trade information was available (Setyawati, 2007).</p> <p>Considered to be very rare in Sarawak (Julaihi, 2007). No information on trade in the species was available from <b>Malaysia</b> (Chua, 2007).</p>
13	RUTACEAE	<i>Merrillia caloxylon</i> (ID, MY, TH, other)	<p><i>M. caloxylon</i> was reported to be rare in <b>Thailand</b>, yet not in the country's Red Data Book (TH participants, 2007).</p> <p>No information on the species' conservation status was available from <b>Indonesia</b>. It was reported to be used locally in the country, but not recorded as in international trade (ID participants, 2007).</p> <p>Contrary to information on the background document, the species is not extinct in <b>Malaysia</b>, although it was considered to be quite rare in the country, and no records of trade were reported (Chua, 2007). It was reported to be rare in Sabah, where the species was known to occur in only one locality in the east coast. Reportedly used locally in Sabah, but not in international trade (Sugau, 2007).</p>
14	SAPOTACEAE	<i>Palaquium bataanense</i> (PH)	<p><i>P. bataanense</i> was supposed to be common in primary forests of the <b>Philippines</b>. The species is not in the country's Red List and no records of international trade were reported from the country.</p> <p>Further clarification was considered to be needed for this species, and it was suggested that UNEP-WCMC and the Philippines double-check on which list it should be included.</p>
15	STERCULIACEAE	<i>Scaphium longiflorum</i> (ID, MY)	<p><i>S. longiflorum</i> was reported to be relatively uncommon in <b>Malaysia</b>. It was suggested that the trade figures presented in the background document for this species possibly refer to <i>Macropodium</i> instead, as <i>S. longiflorum</i> was not considered to be in trade (MY</p>

Family	Species (& Range States)	Workshop comments
16	VERBENACEAE	<p>participants, 2007).</p> <p>It was not confirmed that the species occurs in East Kalimantan (ID) participants, 2007).</p>
	<i>Tectona philippinensis</i> (PH)	<i>T. philippinensis</i> is listed as Critically Endangered in the Philippines. No international trade in the species was reported.
17	<i>Vitex parviflora</i> (ID, PH)	<p><i>V. parviflora</i> is not included in the Red List of Indonesia. No information on trade in the species was identified from the country.</p> <p>It was reported to be in the Philippines' Red List.</p> <p>The species was not considered to occur in Sabah, or anywhere else Malaysia (Sugau, 2007).</p>

Table 6. Timber tree species not thought to be in international trade or to be of conservation concern

	FAMILY	Species (& Range States)	Workshop comments
1	ACERACEAE	<i>Acer laurinum</i> (ID, LA?, MY, PH, TH, VN, other)	<p>Sam (2007) indicated that <i>A. laurinum</i> had been moved to Sapindaceae, but Abdullah (2007) considered it belonged to Aceraceae.</p> <p>No trade in the species was considered to take place in <b>Malaysia</b> or <b>Indonesia</b>, as it was deemed to be of insufficient size and mostly for ornamental use. The species was noted to be of no conservation concern in any of the two countries (Abdullah &amp; Setyawati, 2007).</p> <p>Bian (2007) reported a personal sight of the species in the mountains of <b>Lao P.D.R.</b></p> <p>Occurrence was reported in the mountains of <b>Thailand</b>, where the species is considered to be a country endemic (Chayamarit, 2007).</p>
2	APOCYNACEAE	<i>Alstonia pneumatophora</i> (ID, MY, other)	<p><i>A. pneumatophora</i> was reported to occur in west Kalimantan. It was reported that <i>A. solaris</i>, but not <i>A. pneumatophora</i>, is planted in <b>Indonesia</b>, because of the small diameter of the latter (Setyawati, 2007).</p> <p>In <b>Malaysia</b>, 4,000 m<sup>3</sup> of Pulau sawn timber were reported to be traded annually between 2002 and 2006. The term Pulau refers to the whole genus (Jumat, 2007). Saw (2007) indicated that although the genus is in trade, this particular species is not, because the trees are small and their timber is very soft. It was noted, however, that there is a good market for interior decoration using Pulau (MY participants, 2007) and also that, according to a book, the wood is also used in the manufacture of pit helmets (Chua, 2007). Julaihi (2007) pointed out that since this is a peat swamp dwelling species, habitat degradation could be an issue.</p>

FAMILY	Species (& Range States)	Workshop comments
3 EBENACEAE	<i>Diospyros pilosanthera</i> (KH, ID, MY, PH, TH, VN, other)	<p><i>D. pilosanthera</i> was reported to be in trade in <b>Indonesia</b>, but not to be a major timber species (Partomihardjo, 2007).</p> <p>The <b>Philippines'</b> participants considered the species to be in trade and of possible conservation concern.</p> <p>The accepted name in <b>Cambodia</b> was reported to be <i>D. helpliori</i> (Thy, 2007).</p> <p>Abdullah (2007) considered that there are four varieties of this species.</p> <p>Because of its small size, the species was not considered to be in trade in <b>Malaysia</b>, where it is reportedly used mostly for handicrafts (Saw, 2007).</p> <p>It was not considered to be traded in <b>Viet Nam</b> (Sam, 2007).</p> <p><b>Comments from Cambodia provided after the workshop by Thy (2007):</b></p> <p><b>Synonym:</b> <i>D. helferi</i> (Dy Phon P., 2000)</p> <p><b>Common name:</b> Trayeung (Cambodia)</p> <p><b>Habitat:</b> Occurs as an evergreen tree in open dipterocarp gallery, dry evergreen forest in the lowlands (observation). The usual leaning trunk with black bark generally grows on termite mound.</p> <p><b>Population status and trends:</b> In most forested areas of Cambodia, the species has not yet been used due to the significant number of good quality specimens of other species that are preferred and which still exist. It is mixed with <i>Diospyros crumenata</i> for sale.</p> <p><b>Threats:</b> It suffers from seasonal fire and habitat conversion.</p> <p><b>Use:</b> Wood is used for cabinetwork (Dy Phon, P., 2000).</p> <p><b>Trade:</b> No information.</p>
4 FLACOURTIACEAE	<i>Homalium foetidum</i> (ID, MY, PH, other)	<p><i>H. foetidum</i> was not considered to be in trade in <b>Malaysia</b> (Saw &amp; Sugau, 2007) or the <b>Philippines</b> (Madulid, 2007), and not enough information on trade in the species was available from <b>Indonesia</b> (Partomihardjo, 2007).</p>



FAMILY		Species (& Range States)	Workshop comments
5	GUTTIFERAE	<i>Calophyllum eurphyllum</i> (ID)	It was noted that not enough information is available on the distribution of <i>C. eurphyllum</i> in <b>Indonesia</b> , and therefore it was not clear whether the species is a single-country endemic (Setyawati, 2007).
6		<i>Calophyllum inophyllum</i> (KH, ID, LA, MY, PH, TH, VN, other)	<p>Leach (2007) indicated that <i>C. inophyllum</i> is very widespread, occurring throughout the coasts of the region, and that it provides good wood for furniture.</p> <p>Sam (2007) reported that the species is common in <b>Viet Nam</b>, and that no information on trade was available for the country.</p> <p>Johnson (2007) noted that source countries often report exported timber as <i>Calophyllum</i> spp. or even provide common names only, and that importing countries may give this timber a species-level name without really knowing which species it is.</p> <p>Comments relating to <b>Cambodia</b> provided after the workshop by Thy (2007):</p> <p><b>Cambodian name:</b> Khchung</p> <p><b>Habitat:</b> Native to Cambodia in dry evergreen forest and evergreen forest. Some <i>Calophyllum</i> spp. were observed in hill evergreen forest up to 1300m.</p> <p><b>Threats:</b> Habitat loss.</p> <p><b>Utilization:</b> Timber is used for construction in some rears where good quality trees are scarce. Lasting wood, resistant to insects is used to build boat, poles, and houses. Leaves are inhaled to treat headache and dizziness. Oil from seed is mixed with another oil from <i>Hynocarpus kurzii</i> is used against leprosy (Dy Phon, 2000).</p> <p><b>Trade:</b> Not reported, but possibly to neighboring countries.</p>
7	LAURACEAE	<i>Phoebe elliptica</i> (ID, MY)	<p>No information on trade in <i>P. elliptica</i> was available from <b>Indonesia</b> (Partomihardjo, 2007). The species is not included in the country's list of protected species, and it was suggested that since the forest in west Java is almost completely gone, <i>P. elliptica</i> is likely to be rare there, yet probably still present (Partomihardjo, 2007).</p> <p>The conservation status of the species was reported to be unknown in <b>Malaysia</b>, where it was considered unlikely to be in trade (Chua, 2007).</p>

FAMILY	Species (& Range States)	Workshop comments
8	LECYTHIDACEAE <i>Planchonia valida</i> (ID, MY)	<p>It was noted that although some members of this family are traded in <b>Malaysia</b>, this particular genus is not (Abdullah, 2007).</p> <p>In <b>Indonesia</b>, the species was considered to be internationally traded, according to Abdurrohman <i>et al.</i> (2004) [Abdurrohman, S., Mandang, Y.I., &amp; Sutisna, U. (Ed.) 2004. <i>Atlas Kayu Indonesia</i> Jilid III. Departemen Kehutanan, Badan Penelitian dan Pengembangan Kehutanan, Pusat Penelitian dan Pengembangan Teknologi Hasil Hutan. Bogor] (ID participants, 2007).</p> <p>No information on the species was identified for <b>Thailand</b>.</p>
9	MELIACEAE <i>Vavaea amnicorum</i> (ID, MY, PH)	<p><i>V. amnicorum</i> was reported to occur on limestone and heath forests in <b>Sabah</b>. There were no records of trade in the species from the region (Sugau, 2007).</p> <p>No recorded trade was reported from <b>Indonesia</b> (ID participants, 2007).</p> <p>In the <b>Philippines</b>, this species was considered to be not traded and of no conservation concern (PH participants, 2007).</p>
10	MYRTACEAE <i>Kjellbergiodendron celebicum</i> (ID)	<p><i>K. celebicum</i> was reported to be endemic to <b>Indonesia</b>, but no information on the species was available from the country (Partomihardjo, 2007).</p>
11	RUBIACEAE <i>Jackiopsis ornata</i> (ID, MY, other)	<p>No trade records for <i>J. ornata</i> were reported from <b>Malaysia</b> (Chua, 2007).</p> <p><b>Indonesia</b> reported no trade records or conservation information from the country (ID participants, 2007).</p>

FAMILY	Species (& Range States)	Workshop comments
12	SIMAROUBACEAE <i>Ailanthus integrifolia</i> (ID, MY, PH, VN, other)	<p><i>A. integrifolia</i> was reported to be common but not in trade in Viet Nam (VN participants, 2007).</p> <p>It was noted that the species is not in the Philippines' Red List and that there are no trade records for the country (PH participants, 2007).</p> <p>The species was considered to be widely distributed in Indonesia, but no information on population status or on international trade was available from the country. It was suggested that the wood of this species is mixed with that of others (ID participants, 2007).</p> <p>It was reported to be very rare in Sarawak (Julaihi, 2007), but widespread in Sabah (Sugau, 2007).</p> <p>Common name: Tree of Heaven.</p>
13	STERCULIACEAE <i>Pterocymbium tinctorium</i> (KH, LA, MY, PH, TH, other)	<p><i>P. tinctorium</i> was reported to be rather common in lowland forests in Thailand.</p> <p>It was noted that this species is not in the Red List of the Philippines and that there are no records of trade from the country.</p> <p>The species is not in the list of protected species of Indonesia, and there are no records of trade from the country.</p> <p>The species was considered to be widespread in Malaysia, and it was noted that it also occurs in Sarawak. No records of trade were reported from the country.</p> <p>Reported to be common and not in trade in Lao P.D.R.</p> <p>Occurrence in Cambodia was reported, but no information on status or trade could be identified.</p> <p>Comments from Cambodia provided after the workshop by Thy (2007):</p> <p>Common names: Chan Tumpeang can; TMBaMg (Cambodia)</p> <p>Habitat: In dense and secondary formation in tropical forest. White very soft wood used to make matches. Bark is used as color dye (Dy Phon P., 2000)</p>

FAMILY	Species (& Range States)	Workshop comments
14	<i>Pterocymbium tubulatum</i> (ID, MY, other)	<p>It was reported that in Peninsular Malaysia there are no records of trade in <i>P. tubulatum</i>, and that the species is data-deficient in terms of status. In Sabah it was reported to be widespread and traded as Teluto, although this trade was considered to be insignificant (MY participants, 2007).</p> <p>Recorded in <b>Indonesia</b> from Sumatra and Kalimantan. In East Kalimantan populations of 1 individual/ha had been recorded. Reportedly traded as Tongtolok in Indonesia, but only locally (ID participants, 2007).</p>
15	VERBENACEAE <i>Tectona hamiltoniana</i> (Other)	<p><i>T. hamiltoniana</i> was not considered to be either in international trade or of conservation concern in the region by the Workshop Participants (2007). Kashio (2007) noted that this species is not planted.</p>







